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Teachers' Experiences With and Perceptions of Single-Gender Instruction of African American Students

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Kymerli Chandler

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2017

Abstract

Teachers' Experiences With and Perceptions of Single-Gender Instruction
of African American Students

by

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MA, University of Phoenix, 2005

BS, Mississippi Valley State University, 2005

Doctoral Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Education

Walden University

July 2017

Abstract

In a large, urban district in western Tennessee, African American students perform considerably lower in math, science, and reading than other districts. Several teachers in western Tennessee are using single-gender instruction as a practice, but little is known about its effectiveness in addressing the needs of African American students. Currently, there is a gap in scholarly and practical understanding of the effects of single-gender classrooms on the academic success of African American students in western Tennessee. This exploratory qualitative case study examined the experiences shared by teachers who use single-gender learning to educate African American students in secondary schools in western Tennessee. The social cognitive theory and brain-based learning were used as frameworks in examining the perceived effectiveness of single-gender classrooms, and the guiding research questions were designed to focus on teachers' experiences with single-gender classroom instruction for African American students. Ten teachers using single-gender classrooms to educate African American high school students in the subjects of English, math, or science were interviewed. Data were analyzed using the matrix approach, which led to the identification of 3 themes: learning styles, classroom management, and instructional strategies used in single-gender classrooms. These themes were identified as factors indicating benefits and pedagogical practices participants perceived as effective when used to educate African American students in single-gender classrooms. Insight from this study will enhance educators' ability to reach a population of underserved students, thus affecting social change by reducing racial education disparities among African American students.

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Dedication

I first thank my Lord and Savior for providing me with the strength and patience to endure this extensive process. There were numerous times that I felt that I could not compete this degree. I am grateful for the grace and mercy needed to make this dream a reality.

I sincerely thank my mother and father for instilling the will to push harder to achieve my goals. I've always wanted to make you proud, and I hope that I do.

Dr. Harris, you have inspired me more than you will ever know. Our paths have crossed for a reason and will be forever connected. You and your family will be forever my family.

My sisters, Jan and Jack, I love and you and will forever cherish being your big sister. Thank you for just being the phenomenal women that you are for your families and for this world. You are unnoted role models for present and future women.

My daughter and my heart, Kamryn, you are the best of everything in my world. You are the reason I will be my best me...always. Last but never least, my husband, Kendrick Mandel Chandler, you have made my goals reachable and my dreams visible. You see me without contention when I am unable to see the best in myself. I am honored and blessed to share this journey with you.

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Section 1: The Problem

Introduction

Every Student Succeeds Act (ESSA) was signed into law in December of 2016 as a reauthorization of the Elementary and Secondary Education Act (ESEA) of 1965. The law ensures that publicly funded schools unable to demonstrate adequate academic achievement may initially be identified as a target school or a school in need of improvement. The modifications of the law in its connection to The No Child Left Behind Act of 2001 required states to set college- and career-ready standards as well as clear performance and growth targets for all student subgroups (Schneider, 2016).

Since the creation of NCLB, school districts are obligated to look closely at all racial and gender subgroups. Historically, African American students have performed lower than Caucasian students in math, science, and language arts. Even with the increase of academic achievement in many school districts after the induction of NCLB, African American students continue to perform lower than almost all other demographics (McCreary, 2011). Looking closer at the performance of gender subgroups, African American male students tend to score lower in most academic subjects than any other subgroup from primary to secondary grades (Delpit, 2012; Dray & Wisneski, 2011). In comparing African American males to African American female students, females outperform males in reading in 45% of the states (Chadwell, 2010).

According to several studies, public educators have failed to meet the academic, emotional, and social needs of African American students (Ladson-Billings, 2011 & Spring, 2010). It is imperative that more efforts are made to improve academic success

among African American students.

Some districts have implemented single-gender education as a strategy to address learning needs of diverse student populations. Researchers contend that single-gender classrooms create a learning environment and curriculum that is more relevant to specific student needs (Brathwaite, 2010; Kim & Law, 2012; Manning, 2011). In western Tennessee, some schools have implemented single-gender classrooms to meet the needs of African American students.

Definition of the Problem

In a large urban western Tennessee school district with a student population that is 78.4% African American, high school students have consistently performed lower than students in other districts in Tennessee (Tennessee Department of Education [TDoE], 2015; see Table 1). Additionally, math, reading, and science assessment scores of 9th through 11th grade students have remained about 20% lower than all other districts in Tennessee. In this exploratory qualitative case study, I focused on whether the single-gender classroom has helped educators in this school district meet the needs of African American students.

Employing educational strategies that effectively reach African American students is not only a national problem, but appears even more evident in the state of Tennessee (National Assessment of Educational Progress [NAEP], 2011). According to NAEP (2011), Tennessee students were behind their peers in math, science, and language arts, and ranked 46th in the nation.

Table 1

Tennessee Department of Education 2015 Achievement Data Comparison of All TN Districts and Western TN

Subject	2015		2014		2013	
Alg I	54.1	65.6	53.4	62.4	30.3	37.9
Alg II	37.3	54.2	25.1	47.9	14.7	42
Bio I	42.8	65.2	47.6	63.5	29.8	62.3
Eng I	50	71.8	51.7	61	38.7	68.1
Eng II	42.2	64.8	43.5	63.5	31.1	59.5
Eng III	19.2	41.7	19.4	26.5	13.1	39.6
Chem	23.7	44.2	92.8	95.9	90.5	96.1

According to a recent NAEP (2014) profile, Tennessee has experienced considerable academic growth, increasing to a ranking of 25th in the nation in math scores among fourth grade students. Despite this growth of Tennessee students collectively, African American students appear to be continuing to exhibit more below-basic scores than all other student groups in math and language arts (TDoE, 2014). Although Tennessee has been recognized for growth and achievement, African American students in western Tennessee have experienced a 4-point decline in reading among eighth grade students. African American students may not be benefiting from current teaching practices used to increase student academic achievement (personal communication, 2015).

African American students' lack of achievement may be attributed to how they are being taught in classrooms across the state. For example, African Americans in

Tennessee are proficient in Grades 3-8 language arts at a rate of 26.3% compared to their Caucasian counterparts at 55.6% (TDoE, 2016). Current teaching practices may not be conducive to the learning styles of African American male and female students as an aggregate population in building skills in subject areas such as reading that are needed for students to be successful in other subject areas. While single-gender classrooms have been implemented in some schools in this district to combat this problem, their perceived effectiveness for African American students has not been fully examined (personal communication, November 2015).

In 2012, African American male students' graduation rate in this school district was lower than that of Caucasian students and their African American female counterparts (TDoE, 2012). Even though the completion rate for all African American students in Tennessee increased by one percentage point, the graduation rate for African American males in this district decreased by one percentage point (2012). Single-gender classrooms were created to allow teachers an opportunity to differentiate according to the cultural needs of African American male students as a means of improving African American male students' achievement in this district (personal communication, 2016).

Rationale

Evidence of the Problem at the Local Level

A large urban school district in western Tennessee with majority African American student population has continued to perform low on standardized tests in math, English, and science (TDoE, 2015). There appears to be an achievement gap based on tested subject areas, as noted in Table 1. Students in western Tennessee scored over ten

percentage points lower in Algebra I and Algebra II than all other students in Tennessee. There is a more than twenty percentage point gap in English I, English II, English III, and Chemistry.

Across the United States, it is common that African Americans, specifically males, have substantially more referrals to special education classes than any other race (Coutinho, Oswald & Best, 2014). There is also a lack of information regarding the pedagogical practices used by teachers to educate African American students.

Evidence of the Problem from the Professional Literature

With the transformation of the American economy over the last several decades and the demand for a more knowledge-based workforce, a high quality education has become paramount (Gillen, Selingo, & Zatynski, 2013). A high quality education is needed to prepare students for the demands of an increasingly complex workforce today and in the future (Peterson & Kaplan, 2013). Educators in school districts across the country have failed to provide all populations with equitable access to quality teaching and learning (Price, 2011). Many educators across the nation have been unsuccessful in implementing effective pedagogical practices, a failure that has resulted in African American students experiencing a national graduation completion rate of 68% as compared to 85% for White students (National Center for Educational Statistics, 2012). Nationally, 12% of African American fourth grade males are proficient in reading, as compared to 38% of Caucasian males.

Purpose of the Study

The purpose of this exploratory qualitative case study was to examine the perceived effectiveness of single-gender classrooms for African American students in high schools in Tennessee. In this exploratory qualitative case study, I describe what participants know about the practices of single-gender instruction as they apply to academic achievement. Specifically, I focused on the experiences shared by teachers who use single-gender learning to educate African American students.

Definitions

Academic success: Concept that may be composed of six components: academic achievement, satisfaction, acquisition of skills and competencies, persistence, attainment of learning objectives, and career success (York, Gibson, & Ranking, 2015).

Single-gender education: Education in which males and females attend class exclusively with members of their own sex (U.S. Department of Education, 2015).

Significance

This exploratory qualitative case study is significant because it will increase dialogue about and awareness of instructional pedagogical practices that may be impeding the academic success of African American students. There have been several studies on learning differences between females and males without attention to African American students as an aggregate population (Jayson, 2009; Kulturel-Konak, D'Allegro, & Dickinson, 2011; Martino, Kehler, & Weaver-Hightower, 2009; Watson, Kehler, & Martino, 2010; Price, 2011; Senn, 2012). Consequently, even fewer studies have examined the influences of academic success relative to gender, specifically with African

American students. Hence, there is a major gap in research dedicated to exploring the influences of single-gender classrooms on the academic success of African American students not only in Tennessee, but across the nation.

Historically, school districts across the United States have faced challenges in addressing the educational needs impacting academic success among African American students (Bonomo, 2010; Whitmore & Bailey, 2010). The educational system has been seen as unsuccessful in many regards, but especially when it comes to providing an equitable education to impoverished American African communities (Tatum, 2012). It has long been known that education is a significant determinant of productivity in most societies, and education is a factor that determines progressive or unprogressive communities (Marcus, 2014). Insight from this exploratory qualitative study may serve as a basis for improving educational practices needed to adequately address the academic challenges of educating male and female African American students at a local school district and beyond. Stakeholders across the nation may benefit from this study in that it may provide additional insights that could enhance educators' ability to reach a population of underserved students, thus affecting social change by reducing racial education disparities among African American students.

Guiding Research Questions

In spite of making considerable academic progress as a collective population in the state of Tennessee, African American students perform lower than other subgroups in math and language arts.

Some researchers have suggested that the use of single-gender classrooms may

help close the achievement gap of minority students (Thomas & Maxwell-Jolley, 2012), but there is an absence of research dedicated to the experiences and perceptions of teachers utilizing that form of instruction to educate African American students.

Understanding the instructional strategies used by these teachers may be beneficial in increasing reading and math scores of African American students. Educators across the nation have been ineffective in closing the achievement gap between African American students and Caucasian students, specifically African American males. African American students are disproportionately represented in suspension, special education referral, and dropout rates (Skiba, Horner, Choong-Geun, Rausch, May, & Tobin, 2011; Dewey, Gregory & Fan, 2011). By exploring instructional strategies used in reaching this population, I sought to uncover pedagogical approaches that can be beneficial in Tennessee and across the nation.

I developed the following research questions to examine my study site's use of single-gender classes in order to determine their perceived effectiveness in educating African American students:

RQ 1: What are teachers' experiences with single-gender classroom instruction for African American students?

RQ 2: What pedagogical practices do teachers perceive as effective with African American students taught in single-gender classrooms?

Review of the Literature

Introduction

My primary intention in this section is to explore the impact of single-gender instruction on all students, specifically African American students. In doing so, I detail the conceptual frameworks that grounded this qualitative study of single-gender classrooms. In this section, I aim to provide insight regarding the achievement gap between African American and Caucasian students and to mark the differences in the learning styles of males and females. Furthermore, in this section I discuss obstacles that African American students face that may impact their motivation and overall success. Finally, I discuss the role of single-gender instruction in the lives of all students, especially African American students, and the preparedness of teachers responsible for teaching these classes.

I used the social cognitive theory (SCT) as the framework for this exploratory qualitative case study to examine the perceived effectiveness of single-gender classrooms. SCT, which was developed by Bandura (1986), holds that learning is acquired in a social context in which development is reinforced through behavior, environment, and personal factors. The theory also identifies behavioral actions as results of societal expectations (Burney & Beilke, 2008). Teachers' diverse social backgrounds and their influence on the educational process frame the experiences that teachers have educating African American students in single-gender classrooms.

The construct of self-efficacy, as a tenet of SCT, relates to an individual's confidence and self-awareness of his or her abilities in specific situations (Bandura, 1977). Students with a sense of efficacy are most likely to set goals towards academic success, and are intrinsically motivated to persevere through challenges (Bandura, 1993). The presence of self-efficacy in single-gender classrooms can increase factors that contribute to the success of girls and boys (Burney, 2008).

I also used brain-based learning as a framework to examine single-gender-based classrooms. According to researchers, there is a significant difference in the sequential brain development of girls and boys. Language and fine motor skills develop 6 years earlier in girls than in boys (Bonomo, 2010). These differences determine a variety of learning outcomes for both female and male students (Duman, 2010). Students tend to function in classrooms and learning settings based on how the brain responds (Duman, 2010). For example, girls have more cortical areas devoted to verbal functioning. This affects their ability at sensory memory, sitting still, listening, tonality, and the complexities of reading and writing. Boys, in contrast, have less serotonin and oxytocin, making it less likely for them to sit still and listen (Gabriel & Schmitz, 2007). This may result in restlessness, sleeping in class, misconduct, or incomplete assignments. With this in mind, researchers contend that educators must build upon this knowledge and structure lesson design and implementation based on these learning differences (Duman, 2010). Single-gender classroom structures can be better attuned to how students naturally process learning, given the biological differences of males and females (Piechura-Couture, Heins, & Tichenor, 2011). Brain-based learning is particularly useful when

examining pedagogical practices determined by teachers as effective in educating African American students in single-gender classrooms.

Perspectives on the Achievement Gap Nationally and in Tennessee

With the transformation of the American economy over the last several decades and the demand for a more knowledge-based workforce, the value of an education is paramount (Gillen, Selingo, & Zatynski, 2013). In order to meet these demands, it is necessary for students to receive an education that prepares them for the complexities of the workforce both today and in the future (Peterson & Kaplan, 2013). As a result, it is imperative that primary and secondary school teachers increase their efforts and resources to ensure that all students are receiving the best education. However, this does not appear to be the case for all ethnic groups. As statistics show in Table 2, African Americans have far lower high school graduation rates than the national average.

Table 2

U.S. Department of Education Percentage of High School Completion by Race for 2014

Students	Percentage
All	82.3%
Blacks	72.5%
Whites	87.2%
American Indian/Alaska Native	69.6%
Hispanic	76.3%
Asian/Pacific Islander	89.4%
Low Income	74.6%

Minority students are not graduating like their Caucasian peers (U.S. Department

of Education, 2015). According to Darling-Hammond (2014), approximately two-thirds of U.S. middle school teachers work in schools where more than 30% of students are economically disadvantaged. Additionally, African Americans comprise just over 12% of the population, but have a greater than 16% dropout rate (U.S. Department of Commerce, 2010). Even though this issue has received some financial attention, the achievement gap between African Americans and Caucasians is just as wide as ever (Thomas & Maxwell-Jolly, 2012).

The achievement gap has been a prevalent feature in the history of the U.S. educational system. The state of Tennessee has historically been insufficient in serving minority and low-income students, and in providing equitable access to rigorous coursework to all students. According to the College Board, Tennessee reported that out of 13,524 students taking an AP exam in 2013, only 1,932 of those students were African American (College Board, 2014). Further, there was a more than 5% equity gap in minority students receiving a quality teacher in math and reading in Tennessee in 2013 and 2014 (TDoE, 2015). These disparities perpetuate the trend of economically disadvantaged students and students of color not reaching academically advanced achievement levels (2016). Although Tennessee is one of only two states with a graduation rate of more than 70% for African American males, there is still an 11% gap in comparison to Caucasian males (Superville, 2015).

African Americans and Hispanics have continued to lag behind Caucasians academically (Borman, Grigg, & Hanselman, 2016; Medosa-Denton, 2014; Webb & Thomas, 2015). As a result, many have called for various ways of closing the

achievement gap. According to Darling-Hammond (2014), closing the achievement gap begins with the teacher. She noted that, collectively, educators and policymakers must value teaching and teacher learning, redesign schools to create time for collaboration, and create meaningful teacher evaluations that foster improvement.

Not only is the lack of academic success of African American males a national problem, it is even more evident in the state of Tennessee. The state of Tennessee must foster better practices that reflect these efforts to enhance the learning experience of their students. Table 3 shows that African American males have a lower rate of high school graduation completion than other subgroups.

Table 3

Tennessee High School Completion Trends

Students	2014 Cohort	2015 Cohort
All	87.8%	88.5%
Blacks (all)	80.6%	82.3%
Whites (all)	90.9%	91.3%
Blacks (males)	42%	41%
White (males)	53%	52%
Blacks (females)	58%	59%

N = percentage of cohort students completing high school in 4 years.

The literature has included a wealth of research on the academic achievement gap between African American students and other subgroups (Brathwaite, 2010; Chudowsky & Chudowsky, 2010; Cokley & Chapman, 2012; Darling-Hammond, 2014). While the

achievement gap has decreased in primary schools, the gap has not closed in high schools (Darling-Hammond, 2014; Thomas & Maxwell-Jolly, 2012; Wallace et al., 2008). These achievement gaps exist in most grades and subject areas, including reading and math.

The National Assessment of Educational Progress (NAEP) has reported that the reading scores of African Americans have been lower than those of Caucasians students since 1971 (2012). Although the gap has narrowed since 1971, African Americans still are behind their Caucasian peers (National Center for Education Statistics, 2012). While students in some states such as Pennsylvania have showed gains in reading, most school districts were still unsuccessful in closing the achievement gap between African Americans and Caucasians. According to NAEP (2015), scores for mathematics and reading for 8th grade students decreased for African Americans, Hispanics, and Caucasians. Although all three racial groups scored lower than in 2013, African Americans students performed the lowest, with a 32-point gap in mathematics and a 26-point gap in reading as compared Caucasian students.

The Struggles of African American Students

Social and financial issues are factors that lead to the lack of academic success of African American students. According to the Achievement Gap Initiative at Harvard University (2013), family resource disparities can be predictors of an academic achievement gap. Poverty rates in 2010 were 27.4% for African Americans and 26.6% for Hispanics, compared to 9.9% for non-Hispanic Caucasians and 12.1% of Asians. Median family income in 2009 was \$38,409 for African Americans, \$39,730 for Hispanics, \$62,545 for Whites, and \$75,027 for Asians. Achievement gaps are both

causes and consequences of social and financial disparities among African Americans.

Researchers have shown that the characteristics of one's family dynamics attest to a third of the achievement gap that exists between African American and Caucasian student populations (Barton & Coley, 2010). Barton and Coley (2010) argued that family income, employment, and the level of education attained by parents are reported to contribute to the existing gap. Family dynamics and belief systems play a significant role in how children and adolescents perceive their future. Parent perceptions of education, as well as engagement in the process, tends to impact the level of success experienced by students (Phillips, 2011). This absence may impact their experiences in an educational setting where these indicators may seem foreign or unfamiliar.

Another concern that children beginning elementary and middle school may experience is frustration or apprehension. Throughout the course of schooling, African American males and females begin to find that their values, cultures, and vernaculars are far less similar to what exists in many classrooms in America (Cokley & Chapman, 2012; Moon & Singh, 2015). According to a study focused on racial differences in self-esteem in the National Women's Law Center (2014) report, African American children scored higher than Caucasian children on certain self-esteem measures but lower in areas related to academics. Those differences in scores between African American and Caucasian children were more pronounced for girls, and increased with age even though many youth struggle with self-esteem during adolescence. As a result, the ability and motivation to learn may present issues in academic achievement for both male and female African American students.

Self-Struggles of African Americans Males

With the issues of self-esteem and motivation, African American males consistently engage in a struggle with “self” and one’s place and stance in society. African American males populate prisons as the leading demographic groups serving time for violent crimes (Bell, 2010). The struggle to understand the African American male’s stance in society is incumbent in gaining a perspective of African American males in America’s schools. When African American boys attend schools that do not contend to the diversities of culture and gender, they are unprepared to co-exist (Adeleke, 2015). This lack of conformity is preeminent being that there is a lack of understanding of dual expectations by both the educator and the student.

As a result of unintentional exclusionary practices, African American males face disproportionately negative factors that affect their academic success. Educators and policymakers in the United States have been guilty in subjecting minority students to differential and disproportionate rates of suspensions (Gregory, Skiba, & Noguera, 2010). In a national survey, 50% of African Americans students reported being suspended or expelled as compared to only 20% of White students (Wallace, Goodkind, Wallace, & Bachman, 2008). African American males represent only 17% of the national student population but represent 36% of suspensions (Skiba et al., 2011). Most disciplinary sanctions are reported to remove the recipients from the educational process by keeping them out of classrooms, therefore, further creating a gap in learning. Even with this consistent pattern of issuing suspensions and expulsions, there is still little consideration of how these practices may contribute to the achievement gap (KewelRamani, Gilbertson,

& Provasnik, 2007; Johnson, 2013).

In 2014, research conducted in Boston Public Schools identified African American males as having substantially more referrals for special education classes than other races. In fact, one quarter of the males in the Boston School District were referred to special education (Miranda, Mokhtar, Tung, Ward, French, McAlister, & Marshall, 2014). The rate of referrals has become common among many districts in America for many years (Coutinho et al., 2014). Current research findings report that boys are arbitrary placed and often overrepresented in areas of stuttering, autism, and attention deficit/ hyperactivity disorder, (Neidlinger, 2011).

With this perceived inability to learn, many African American boys are falling behind girls in reading and writing (Hucks, 2010). According to Whitmore (2010), struggles with reading and writing skills provoke African American males to become disengaged and increases their chances of dropping out of school. As a result, more opportunities to improve in these areas are needed. According to Kunjufu (2011), African American males should have an opportunity to see young men that mirror their images read. African American males should not only be given the opportunity to see other males read but should be presented with the chance to read anything that is of interest to them, allowing movement during reading, and the chances to listen to books on tape (Kunjufu, 2012).

African Americans Males and Literacy

In noting the socioeconomic and cultural factors supporting the low academic performance of African American males in America's school systems, there must be in-

depth emphasis on literacy and its impact on academic success (Tatum & Gue, 2012).

Reading is a foundational skill that determines success in most subject areas. Students entering the ninth grade that are reading below grade level are less likely to be successful in comparison to those students beginning high school reading on grade level (Knuchel, 2010). Knuchel argued that students face many challenges and often require some level of remediation throughout high school.

Moreover, there is an existing belief that literacy begins in primary grades and becomes less of a predominant skill acquisition by the end of third grade (Snow & Moje, 2010). According to NAEP (2012), reading scores increased for 9 and 13-year-olds but did not improve for 17 year-olds. Pragen (2011) echoed these concerns by noting that only 12% of African American fourth grade boys are proficient in reading, compared to 38% of Caucasian boys. Similarly, only 12% of African American eighth grade boys are proficient in math, compared to 44% of Caucasian boys. Thus, by fourth grade, African American students may be 3 years behind their peers. Consequently, this trend may shed light on the implication that after primary grade levels, the skill of reading may not be taught as thoroughly in secondary grades, or African American males are not given the attention that they need.

Because reading is the foundation for all subject areas, it is imperative to show adequate growth in literacy as a dominating factor in closing the achievement gap for African American males (Pragen, 2011). It is suggested that students need a variety of culturally diverse reading materials in order to create an appreciation and a desire to read. Students tend to be more engaged in reading materials that demonstrate a connection to

their everyday lives (Gambrell, 2011). Historically, there has been little differentiation in reading materials in regards to African Americans males as well as other diverse populations of students. It would be inaccurate to contend that reading proficiency is linked solely to gender. Researchers do argue, however, that gender coupled with socioeconomic factors greatly contributes to the existing literacy gap among African American males (Watson et al., 2010; Swain, Leader-Janssen, & Conley, 2013).

According to a study by Senn (2012), differences in the way males and females learn are detected at an early age. From first through third grade, girls often begin reading sooner and with greater skill than boys, who usually take longer to achieve reading mastery. Additionally, girls display greater skills in grammar and vocabulary, whereas boys have distinct advantages in math. Children with attention and hyperactivity disorders are typically diagnosed during these years in school: 95% of those students diagnosed with hyperactivity are boys, whereas only 5% are girls (Gurian & Henley, 2001).

Similarly, in Grades 4-6, boys generally focus on all things related to action and exploration, whereas girls focus much more on relationships and communication (Senn, 2012). Furthermore, boys display aptitude in map and directional skills, and instead, girls have an edge in tasks that require fine motor skills. As a result, boys are more often referred for remedial reading than girls.

In support of Gardner's (1983) views of ensuring that school districts provide curriculums that are relevant to the experiences of their students to increase student success lends to the idea that varying instructional materials can help increase the

motivation and reading proficiency of African Americans males. Large numbers of African American males have not interacted with reading materials that are culturally relevant and have lacked opportunities to make connections with text (Pragen, 2011; Tatum & Muhammed, 2012). As a result, many African American males do not demonstrate reading fluency in all grade levels. *Reading with fluency* is defined by being able to read with speed, accuracy, and expression (Malour, Reisener, Gadke, Wimbish, & Frankel, 2014). Fluency in reading must be captured prior to the acquisition of reading comprehension. In defining fluency for today's readers, an individual must be able to express comprehension of text (Martin, Elfeth, & Feng, 2014).

This lack of application of reading has been noted in primary grade levels among all demographic groups (NAEP, 2012). Proficient readers gain fluency and comprehension through the continuous practice of reading (Lemov, 2016). This practice entails the application of fluency in achieving comprehension. A study conducted by Ogbu (1987) several decades ago noted that African American males are often not introduced to reading until they begin school. Even when African American male students enter school, they are still introduced to far less words than their Caucasian counterparts throughout childhood (Tatum, 2005; Tatum, 2009; Tatum & Gue, 2010). They are also reported to take fewer opportunities to engage in reading in school and outside of school. As a result, different strategies must be implemented to address specific concerns and needs of certain students.

African American Females and the Achievement Gap

As presented, recent studies have shown the growing gap between African

American students and their Caucasian counterparts. However, African American females have been gradually closing the achievement gap with Caucasians and have surpassed African American men. African American females demonstrate higher levels of reading proficiency than the African American males and are more likely to engage in reading in classrooms (Husband, 2012).

Though there have been some significant strides in the achievement of African American female students, there still appears to be several barriers that they face while in school. According to Klein (2014), African American girls disproportionately receive harsh punishments. The discipline disparities for African American girls are most likely due to the negative stereotypes that are often associated with their race and gender (2014).

Additionally, Klein (2014) adds that African American females are more likely to face sexual harassment in school than their Caucasian female peers. They are also more likely to be held back and to score lower on standardized tests than Caucasian girls. Klein noted that these academic disparities are likely related to the fact that teachers in schools with large African American populations typically have less experience and less access to educational resources. Lastly, Klein stated that African American girls are less likely than Caucasian girls to participate in after-school activities or to take math and science classes. According to data from 2009, African American girls had lower grade-point averages than girls from any other racial or ethnic group.

Furthermore, in a recent study of African American girls in New York City, the girls who had a strong racial identity were more likely than others to say that they were

happy on a typical day, to indicate a serious commitment to their schoolwork, to get good grades, and to express a desire to go to college (Jones-DeWeever, 2009). Jones-DeWeever believed that African American females would ultimately achieve their goals (64% versus 21%) and to have healthy relationships. Hence, motivation and self-esteem are critical in their success. According to the National Women's Law Center (2014) report, evidence suggested that positive messages and support from parents and other important adults, as well as peers, can support the development of positive race and gender identities and mitigate some of the effects of racism. Thus, the ability and motivation to learn falls not only on the student but may also be influenced by the instructors.

Brain Development by Sex

As it pertains to the ability to learn, there is a significant difference in the sequential brain development of girls and boys. Dickey (2014) established that females have a larger hippocampus and stronger neural connections which enable them to receive and process information in the brain faster. Dickey found that having a larger hippocampus prevented females from having as many attention issues as male students. Bonomo (2010) added that language and fine motor skills develop six years earlier in girls than in boys. Bonomo also added that the left side of the brain, which is involved with the ability to use language and connected to verbal and written ability, develops sooner in girls. Therefore, girls are able to perform better than boys in that area.

These differences determine a variety of learning instances for both female and

male students. According to McKenzie (2012), girls in seventh and eighth grade perform higher in terms of higher level reasoning and frontal lobe function. Boys, in contrast, have less serotonin and oxytocin making it less likely for them to sit still and listen (Gabriel & Schmitz, 2007). This may result in restlessness, sleeping in class, misconduct, or incomplete assignments. With this in mind, researchers contend that educators must build upon this knowledge and structure lesson design and implementation based on these learning differences.

Having an understanding of how the brain impacts learning, educators have explored single-gender classrooms to better implement strategies that enable students to be more effective learners (Willis, 2015). A recent study of a fifth grade math class revealed different attitudes of genders affecting achievement in mathematics. This study concluded that the brains of male and female students may indeed impact how they process mathematics (Oswald, 2009). This researcher further concluded that there is a learning gap that exists between the two genders. There are noted mechanisms of brain functions between genders that may also be relative to the subject of language arts.

Motivation

Reading achievement is critical to the success of any student. According to Guthrie and McRae (2011), the aim of reading education is to foster the growth of “lifelong reading.” Hence, this requires motivation from the student. A 2012 report from the Center of Education Policy suggested that motivation is a central part of a student’s educational experience beginning as early as preschool. However, it has received scant attention amid an education reform agenda focused mainly on accountability, standards

and tests, teacher quality, and school management. The report added that motivation can affect how students approach school in general, how they relate to teachers, how much time and effort they devote to their studies, how much support they seek when they are struggling, how they perform on tests, and many other aspects of education. If students are not motivated, it is difficult to improve their academic achievement, no matter how good the teacher, curriculum or school is.

Guthrie and McRae (2011) noted that students who are more positively motivated have strong beliefs in their competence in different tasks, are intrinsically motivated to learn, and have clear goals for achievement. Conversely, students with lower motivation for achievement often are characterized as lacking or being relatively low on these different characteristics. Hence, increased motivation psychologically improves the chances of students being academically successful.

In three studies at suburban or inner-city schools conducted by Yeager et al. (2013), African American students improved their grades after receiving a simple, one-sentence note from their teachers or an online pep talk. The exercises were designed to dispel students' fears that criticism of their academic work could be caused by different treatment of African American students rather than their teachers' high standards. The findings contradict a common trend in education of praising students for mediocre work to help raise self-esteem before delivering critical remarks.

While motivation is essential in promoting academic and social success for all students, understanding the differences in boys and girls is important. Although there is an increase in female students taking advanced courses in mathematics and science, they

are less likely than boys to actually like these courses (National Center of Educational Statistics [NCES], 2004). In contrast to male students, females often attribute their success in these courses to effort and hard work rather than ability (Adeyemi & Adeniyi, 2010). According to Atkinson's (1964) expectancy value-theory, there are gender differences in achieving and avoiding success.

A study by Hartman (2010) focused on two class settings, 100 female college students attending a small Catholic college in the Northeast were surveyed. Hartman focused on finding the relationship between attending single-gender high school and the females' level of self-esteem, motivation in the academic and career life, and gender role beliefs. The findings revealed that girls who attended single-gender high schools have less traditional views about gender roles, a more positive self-concept, and put a greater emphasis on academic/career success than girls who attended coeducational high schools. Hence, understanding how boys and girls learn and certain obstacles that they endure, along with ways to motivate students to learn, may be beneficial to the overall success of students academically. Perhaps, a learning environment that implements motivational strategies that are specific to the needs of genders may be an ideal setting to increase academic success.

Single-Gender and Coeducational Classrooms

As primary and secondary schools look for ways to improve student achievement, many modifications to the learning environment have been implemented. One example is the fact that single-gender classes and schools have been created as a means to increase student achievement in both male and female students, especially in critical subject areas

such as mathematics and science (Pahlke, Hyde, & Allison, 2014). Although reported as more intellectually astute than male students, female student data in mathematics and science show an achievement gap. Providing support to low-achieving students has also played a significant role in the development of single-gender classrooms. In districts in Ohio and Georgia, minority students underperformed academically and displayed social issues that impacted their educational success (Brathwaite, 2010; Ogden, 2011).

According to Ogden (2011), proponents of single-gender instruction believe that mostly African Americans, Hispanics, and females benefit most from this type of instructional setting as single-gender environments help to reduce gender stereotypes that students encounter in coeducational settings. He compared middle grades mathematics scores for three years at four middle schools within an urban school district in Georgia to determine if the instructional setting is a factor in student performance. Based upon the study, two single-gender schools were selected (one male and one female), and two coeducational schools (one traditional and one that incorporated homogeneous class groupings). The results of this study noted that sixth grade male coed single-gender students and seventh grade female coed students in the sample group were more likely to score higher in mathematics than their peers in the other instructional settings. The results indicated that sixth and eighth grade cohort female coed students were more likely to pass the Georgia Criterion-Referenced Competency Tests in mathematics than their peers in the other instructional settings. Results also proclaimed that over a three-year period, female students of the sample group enrolled in coed classes, and female students of the cohort group enrolled in a single-gender school had the largest gains in mathematics.

In another study, Park, Behrman, and Choi (2013) randomly assigned students into single-gender versus coeducational classes in a school in Seoul to assess causal effects of single-gender schools on college entrance exam scores and college attendance. The random assignment showed comparable socioeconomic backgrounds and prior academic achievement of students attending single-gender schools and coeducational schools, which increases the credibility of our causal estimates of single-gender school effects. The three-level hierarchical model indicated that attending all-boys schools or all-girls schools, rather than coeducational schools, is significantly associated with higher average scores on Korean and English test scores. Park et al. found that single-gender schools produced a higher percentage of graduates who attended 4-year colleges and a lower percentage of graduates who attended 2-year junior colleges than do coeducational schools.

Comparably, Bradley (2009) noted that single-sex education was an effective instructional strategy for improving student performance. In Bradley's study, the impact of single-gender education on academic achievement, discipline referral and attendance for public school first and second grade students were analyzed. Bradley found that single-gender education may be an effective instructional strategy for facilitating math and reading improvement for female students. Also, based upon the findings of this study, Bradley noted that single-gender education may have a positive impact on attendance for males and females.

Benefits of Single-Gendered Classrooms

According to Ibanez (2011), single-gender classrooms are beneficial, especially in

the early years, because the students' abilities vary. Ibanez believed that single-gender classrooms could narrow that range which would then allow the teachers to meet the students' needs more easily and move through the curriculum at a faster and more uniform pace. Dickey (2014) suggested that researchers advocate single-gender schools as a means to teach boys and girls using appropriate strategies for their brain-based differences and to help improve the gender gap. Rex and Chadwell (2009), declared that teachers in all classrooms should implement lessons that better meet the needs of their students.

The research of Gurian, Stevens, and Daniels (2009) suggested that single-gender classes are successful in teaching both males and females and promoting gender equality. Gurian et al. stated that teachers must teach with an understanding of boys' energy by creating more space for boys to think. Additionally, their research advocated using more visual stimuli than girls to help them retain information. Finally, they concluded that class instructions should cater to boys' competitive spirit which would not only engage them more but would also increase their motivation in the classroom.

Rex and Chadwell (2009) advised that boys have a higher physical activity level and develop self-control later than girls. Therefore, boys would be more successful in classrooms that are more structured. For example, boys could be given a list of directions in bullet format that would provide a time for completing all steps associated with the assignment.

Not only have single-gender classrooms been implemented to deal with the high physical activity of males, they have also been beneficial in helping boys in special

education. Piechura-Couture, Heins, and Tichenor (2013) conducted a study that focused on the over-representation of males and minorities in special education. Due to males and minorities' academic struggles, many institutions have put them in special needs classes. With an understanding that there are biological differences between males and females, single-gender classrooms were used to help boys' behavior and reduce the number of special education referrals. Piechura-Couture et al. (2013) found evidence that single-gender education is a great option to reduce the overrepresentation of males and minorities in special education after interviewing students, parents and teachers.

In another study conducted in urban middle schools, single-gender education was compared to coeducational classrooms. Ogden (2011), focused on the mathematics scores from a state exam of students at four middle schools (two single-gender schools and two coeducational schools) in Georgia. In addition to the instructional setting, student gender and grade levels were considered. The results of the study indicated that female students enrolled in coeducational classes and those enrolled in the single-gender schools had the larger gains on the state exam in mathematics.

In a similar study which focused on math scores, as well as reading, Canada (2012) collected data from public middle single-gender schools to public mixed-gender schools in South Carolina. Canada used the Palmetto Assessments of State Standards (PASS) to analyze math and reading scores. These scores were used in determining achievement levels of single-gender and heterogeneous instruction. Based upon the findings, students in single-gender classrooms performed better on the PASS.

Reading achievement was also investigated in a study of third, fourth and fifth

grade male students in both single-gender and traditional coeducational instruction. In this study, Douglas (2011) affirmed that single-gender classrooms offer an enormous amount of benefits to students, but clarification is needed to understand how the academic policy is mediated in single-gender classrooms along with increased funding for resources. Also, Douglas noted that enhanced professional development is needed to understand and implement single-gender education.

Not only has single-gender education been studied in the United States, it has also received some attention abroad. Due to concerns over the retention of boys and their academic performance and behavior, Price (2011) conducted a study at a New Zealand co-educational primary school. The administration implemented single-gender classes as a pilot. Price conducted interviews and distributed questionnaires at the beginning and end of the year from the principals, teachers, pupils and parents. Upon completion of the study, the commentary was positive with an emphasis on the gains made in reading and social skills. Further, the study identified the teacher as being a vital part of this learning process and meeting the needs of the boys. Thus, Price suggested that schools provide the professional development and tools needed for teachers to prosper in single-gender classrooms (2001).

Single-Gender Classrooms and African American Males

Research suggests that catering to the specific needs of genders in classrooms can increase success. According to Milligan (2013), African American boys perform best when instructors identify and imbed their cultures into instructional practices. Therefore, understanding their strengths could potentially provide the insight needed to prevent the

misguided special education referrals, increased discipline challenges and dropout rates. In this study, Milligan investigated fifth grade African American boys' perceptions of school, experiences in single-gender classrooms, and the influence of teaching practices on their success in school.

As a result of the study, the data concluded that (1) boys perceive their success in school to be dependent on classroom environment, teaching styles, and familial support; (2) benefits of an all-boy classroom are increased attentiveness, comfortability, the teacher's use of relevant and differentiated teaching practices; (3) challenges of an all boy classroom include strange feeling of being in a class with just boys and unproductive behaviors; and (4) teachers that foster the success of African American boys create a suitable learning environment, hold high expectations, and engage in teaching practices that relate to and motivate students. With this data, understanding the needs of African American boys can be used to increase participation and achievement.

Scott, Allen, and Lewis (2014) also identified single-gender models as a means of dispelling disparities, such as special education practices, for African American male students at charter schools. Schools must intentionally focus on the academic achievement and overall success of African American males. According to Scott et al., this can be done in single-gender environments as it allows gender differences that are associated with learning to disappear and provides an understanding and appreciation for the learning environment (2014).

With increased focus by schools here and abroad and the development of single-gender classrooms, students tend to be more engaged as the instruction specifically

focuses on their needs. Small (2012) analyzed the academic achievement and level of engagement of adolescent Black males participating in single-gender and co-educational reading classes. The findings from the study showed that reading improved in single-gender classrooms when compared to co-educational classrooms. The study also noted that student engagement will be enhanced in single-gender classrooms if it provides cultural understanding, cultivating an instructional community and psychosocial needs.

Single-Gender Classrooms and African American Females

During the mid-twentieth century, most public schools were divided by gender where male and female students were taught in separate school buildings or classrooms (Daniels, 2014). According to Daniels, most of the research at this time claimed that female students were at a disadvantage and were underperforming compared to their male counterparts. Past research suggests that single-gender classrooms may provide learning environments where the female voice is not disregarded and these students are not dominated by males (Tully & Jacobs, 2010). As a result, female single-gender classrooms will allow girls to become the focus and move them toward higher development than coeducational classrooms (2010). Researchers deem this to be necessary as the majority of the research suggests that African American females are performing better than males in all areas.

Swinton, Kurtz-Costes, Rowley, and Okeke-Adeyanju (2011) noted that African American boys report higher self-concepts about their mathematics and science performances than African American girls and that African American girls report higher

self-concepts about literacy. Swinton et al. conducted a research study that analyzed attributions of African American students regarding their achievement in math, English and science and whether these attributions changed from middle to high school. This study that consisted of 115 African American students - 49 boys and 66 girls primarily from a rural school district - supported the researchers' hypotheses as attributions for math successes and failures became more negative for both male and female students. As a result of these issues, African American students are at risk for disengagement in high school in certain subject areas such as literacy for males and math for females (Maye & Day, 2012). Thus, more attention needs to be given to not only African American males, but African American females as well.

Preparedness of Teachers in Single-Gender Classrooms

Past research suggests that these schools must have an understanding of how boys and girls learn, what motivates them, and be sensitive to their socioeconomic situations. As a result, teachers must be prepared and equipped to foster such an environment (Smeaton & Waters, 2013). Often times, the research has focused on the student and has ignored the significance of the instructor. Research by Spielhagen (2011) on single-gender education proved limited implications, because it failed to address preparation of teachers in single-gender classroom environments before they entered them.

However, Johnson (2014) emphasized the importance of teacher preparedness for single-gender classrooms. In Johnson's study, the preparedness of teachers and their ability to implement single-gender instructional strategies and culturally relevant pedagogy with African American girls in single-gender classrooms were investigated.

The results of the study indicated that there was a significant relationship between professional development and teacher preparedness for an implementation of single-gender instructional strategies and culturally relevant pedagogy. The author noted that a significant relationship existed between teacher preparation programs and teacher preparedness for implementing single-gender instructional strategies. Additionally, the data suggested that certain teacher demographics impacted teacher preparedness for an implementation of single-gender instructional strategies and culturally relevant pedagogy for the teachers. Sleeter (2012) suggested that teacher education programs should provide new teachers with learning opportunities that help them focus on the strengths of diverse students to combat negative stereotypes that the teachers may possess about diverse students based on media exposure and past experiences.

Single-Gender Education and African American Students in Western Tennessee

According to Oeur (2014), implementing single-gender classrooms can do more good than harm. Oeur noted that if educators are looking for a way to address the needs of students, who lag behind their peers on a range of academic and social measures, single-gender education is an important tool. Thus, single-gender classrooms, as a practice, will be examined to determine the perceived effectiveness in educating African American students.

Implications

African American students, especially males, appear to have academic difficulties at all levels of education (Brathwaite, 2010; Chudowsky & Chudowsky, 2010; Cokley & Chapman, 2012; Darling-Hammond, 2014; Smith, 2014) when compared to their

Caucasian counterparts. Though African American female students are closing the gap between Caucasian and African American students, they still significantly lag behind overall. This lack of academic success is evident on a national level, as well as in Tennessee (Tennessee Department of Education, 2014). In order to improve and increase the academic success of African American students, attention must be given to address these concerns (Brooks, Jones, & Latten, 2014; Rolland, 2011 and Toldson; Sutton, & Brown, 2012).

Results from this study are intended to be useful in western Tennessee as efforts continue to enhance the learning of African American students. The goal is to understand the impact that single-gender classrooms will have on African American students from the perspectives of the instructor. Based upon these findings, the results will hopefully provide even more insight into this dilemma and will add to the body of knowledge. Furthermore, the data presented could also address the dearth of attention given to African American female students in single-gender classrooms

Summary

This review of the literature examined the academic achievement or lack thereof of African American students, challenges of African American students, the benefits of single-gender classroom environments, and teacher preparation for teaching diverse student populations and ultimately single-gender classrooms. According to research, there is still a significant gap between African American and Caucasian students at various ages in multiple subjects (Brathwaite, 2010; Chudowsky & Chudowsky, 2010; Cokley & Chapman, 2012; Smith, 2014; Darling-Hammond, 2014).

Moreover, Swinton et al. (2011) suggested that while African American girls achieve at lower rates than Caucasian students, their academic achievement often gets overlooked because they normally get compared to another population of students underserved in schools— African American boys. Similarly, a large number of African American males have not engaged in reading materials which seems to play a significant role in the achievement gap between Caucasian students and African American (Pragen, 2011; Tatum & Muhammad, 2012). Hence, single-gender classrooms provide an opportunity for all students, especially African American students to improve academic outcomes, especially in math and science (Tully & Jacobs, 2010).

To increase the chances of academic success, teacher preparation must be implemented to provide information regarding gender differences in learning. Lee and Herner-Patnode (2010) noticed that pre-service teachers with widespread opportunities to practice use more culturally relevant pedagogy than those who did not have this development. Consequently, prepared instructors who understand the challenges of African American students have a better opportunity to close the achievement gap in single-gender classrooms.

Additionally, a presentation of the methodology for this study will occur in section two. Section two will present an in-depth view of the methodological aspects of this study including a rationale for research design, site selection, participant selection and data analysis procedures. Section three will present the findings and results. Finally, section four will discuss and analyze the findings and provide reflections associated with the study.

Section 2: The Methodology

Introduction

A great number of researchers have discussed the low test scores, inadequate schools and resources, poverty, and disenfranchisement of minority students (Adeleke, 2015; Darling-Hammond; Macheo, 2010; Smith, 2004; Tatum, 2012). Much of the literature has indicated that the academic struggles of African American males center around a lack of reading skills and when compared to Caucasian and even African American females (Jantz, 2014; Knuchel, 2012; Senn, 2012; Tatum, 2012; Willis, 2015). Researchers have also suggested that single-gender education has made significant strides in improving academic outcomes for students (Ibanez, 2011, Ogden, 2011; Piechura-Couture, Heins, & Tichenor, 2013; Rex & Chadwell, 2009). However, there is a dearth of research specific to the impact and influences that single-gender classrooms have on African American males. Hence, I examined one school district's use of single-gender classrooms to determine their perceived effectiveness in educating African American students.

In this section, I present the research questions that guided this qualitative study and explain the rationale for using a qualitative method. In addition, I discuss the participants, and the data collection and analysis procedures I used throughout the study.

Research Questions

I examined one school district's use of single-gender classrooms to determine their perceived effectiveness in educating African American students by studying the following research questions:

RQ 1: What are teachers' experiences with single-gender classroom instruction for African American students?

RQ 2: What pedagogical practices do teachers perceive as effective to use with African American students taught in single-gender classrooms?

The Qualitative Research Tradition

This was an exploratory qualitative case study. A qualitative researcher relies on the views of participants, asks broad, general questions, collects data consisting largely of words from participants, and describes and analyzes these words for themes (Creswell, 2012). Qualitative research is a process through which researchers attempt to understand the views of a group or a single individual (2012). Studying single-gender classes in this large urban district helped me understand the pedagogical practices teachers used to educate African American students. Researching these teachers also enabled me to determine if teaching strategies used in single-gender classrooms were effective in teaching African American female and male students as a disaggregate group, which may better help teachers increase achievement scores and thus close the achievement gap in Tennessee. Limited research has been focused on teachers and their experiences with single-gender classes. Teachers accounts of their experiences at various secondary schools in the district elucidated practices that may benefit this population of students.

According to Hopper (2011), qualitative research tends to offer a wealth of varied information on a small case or set of cases over a broad set of data. Additionally, qualitative research can assist in understanding how many different causes and actions lead to specific outcomes. In contrast, quantitative research offers a rational and

pragmatic approach to research (Creswell, 2012). In a quantitative study, a researcher explores the correlation between two variables with a level of control over the events (Creswell, 2012). Because little is known about the influences that single-gender instruction has on African American students at secondary schools in western Tennessee, I designed this exploratory qualitative case study to provide insight regarding pedagogical practices used to educate African American students. In this exploratory qualitative study, I aimed to understand practices used to promote academic success among this minority population by interviewing secondary school teachers in a large district in western Tennessee. With this case study, I intended to inform future pedagogical practices in single-gender classes that may be used to educate African American students.

Justification for Using a Case Study Design

I selected case study design as the most effective qualitative design for this study. In a case study, a researcher explores an event, activity, program, or one or more individuals in order to create an in depth understanding (Stake, 1995). Conducting a qualitative case study provided insight and an understanding of pedagogical strategies teachers used to teach African American students in single-gender classrooms.

A case study enables a researcher to explore a phenomenon within its context using a variety of data (Yin, 2003). This process ensures that multiple perspectives are explored in contrast to seeing through the lens of just one individual or group. Studying a group of teachers at different schools provide access to a variety of experiences and perceptions in regards to using single-gender classrooms to educate African American

students. I thus determined that an exploratory case study was the most effective for examining the perceived effectiveness of single-gender classrooms in educating African American students. Researchers use exploratory case studies to explore situations in which the identified intervention has no clear outcome (Yin, 2003). Although some secondary schools in western Tennessee are using single-gender classrooms, research had not been conducted to examine how teachers perceive this practice as well as their experiences. In this study, I identified pedagogical practices being used by teachers to teach African American students in single-gender classrooms.

Rationale for Not Selecting Other Qualitative Research Methods

When reviewing qualitative research methods, I considered using a phenomenological research given its emphasis on the experiences of participants (Moustakas, 1994). However, I did not intend to simply note the experiences of teachers teaching single-gender classrooms, but rather sought to understand the strategies used to teach African American students and what strategies teachers perceived to be effective.

Although the grounded theory is a qualitative design that involves a strategy of inquiry that seeks the views of participants in order to generate a theory about a social issue, this design involves multiple stages of data collection (Lodico & Spaulding, 2010). I thus determined that I would be too cumbersome give the time and resource constraints of my project. In this exploratory qualitative case study, I examined the perceptions and experiences of a group teachers. This study took place over a course of many interviews, but was bound by time and activity.

Participants

Criteria for Selecting Participants

In this study, I used homogenous, purposive sampling. Characteristics of purposeful sampling include selecting people or sites that best help to understand the phenomenon analysis (Palinkas, Horwitz, Green, Wisdom, Duan, & Hoagwood, 2013). Creswell (2012) noted that researchers hope to develop a detailed understanding to provide useful information, help to learn more about the phenomenon, and to provide a voice to people who otherwise would not have one (2012). Teachers who currently teach single-gender classrooms for at least two years were considered for this research. Participants also taught coeducational classrooms as well. Participants for this study were full-time instructors teaching math, language arts, or science to secondary students in an urban school district in western Tennessee. Participants must have also taught African American students.

Justification of the Number of Participants

According to Sargeant (2012), the participants selected are those who can best inform the research and enhance understanding of the phenomenon under study. Sargeant suggested that the number of participants depends upon the number required to fully inform the researcher regarding all important elements of the phenomenon being studied. Hence, the sample size is sufficient when additional interviews or focus groups do not result in identification of new concepts—an end point called data saturation. With the goal of data saturation in mind, I invited 14 teachers from two different schools in western Tennessee to be interviewed for this exploratory qualitative case study.

Interviewing 10 of these 14 instructors enabled me to fully understand the effectiveness of educating African American students in single-gender classrooms. In exploring the practices of these 10 teachers, I was able to examine the perceived effectiveness of specific instructional practices used to teach African American students.

Procedures for Gaining Access to Participants

The process of gaining access to participants began by mailing a request to the superintendent of the school district in western Tennessee explaining the intent of the study and including the Walden University IRB approval letter. Upon approval from the district's chief academic officer (CAO), I placed a flyer in the two high schools detailing the purpose of the study and the criteria for selection. The flyer also included my contact information (See Appendix E). Interested participants contacted me by personal email or telephone. The approval letters from the IRB and the district's CAO were mailed to the principals. After participants were identified when the interested teachers contacted me, I obtained their contact information including mailing and email addresses.

Each participant determined the interview date, time, and location. Within 2 days prior to the scheduled interview, I confirmed the appointment. Teachers who agreed to participate were interviewed in person at their schools' library. I arrived 20 minutes prior to each interview to ensure privacy.

Methods for Establishing a Researcher-Participant Working Relationship

I had no prior relationships with any of the participants prior to this study. I had not served as their principal or supervisor in any capacity and did not know them personally. As a principal in the district being studied, I am aware of single-gender

instruction, but had not served as principal at any of the participating schools.

In order to establish a positive relationship with participants, I requested a signed informed consent letter from teachers who agreed to participate in the study. All participants received a detailed communication regarding the purpose of the interview as well as the agreed upon date and time needed to conduct the interviews.

Measures for Ethical Protection of Participants

The ethical challenges pertinent to qualitative research are related to informed consent procedures, the relationship between the researcher and the participant, the ratio between risk and benefit, and confidentiality (Houghton, Casey, Shaw and Murphy, 2010). Prior to recruiting participants and conducting research, I requested permission from the Walden University IRB. Upon receiving approval from the IRB (Approval # 12-21-0239533), I forwarded the letter of approval to the district CAO and the school principals of teachers participating in the study. I also sent the CAO and principals a letter communicating the intention of the study as well as the methodology.

Ethics must be demonstrated as they relate to respecting the rights of participants, honoring the research sites, and reporting the research fully and honestly (Creswell, 2012). Participants were mailed a letter of consent which detailed the study and the interview process (See Appendix D). I also made participants aware of my efforts to ensure confidentiality of teachers and schools. Pseudonyms were assigned to all participants and schools to ensure privacy and confidentiality of subjects.

The rights of all participants were respected and honored throughout this study. Participants were informed that, at any time during the interview process, they could

decide to discontinue any and all communication with me. If participants decided at any time not to participate in the study, there would be no negative consequences or repercussions.

Participants of this study were informed of the purpose of this study prior to the data collection process. Participants signed a consent form acknowledging that they were aware of the research process before the interview began. Moreover, participants were provided with a detailed explanation of the collection, analysis, and data reporting process.

Data Collection

Justification for Collecting Data

Interviews were the source for collecting data for this exploratory qualitative case study. According to Turner (2010), the qualitative interviews will provide in-depth information pertaining to participants' experiences and viewpoints of a particular topic. This case study provided the opportunity to interview teachers to determine the perceived effectiveness in educating African American students. These participants provided a better understanding of the experiences of teachers using single-gender classroom instruction to educate African American students. Interviewing teachers helped to examine the pedagogical practices utilized to educate African American students in single-gender classrooms.

Interviews

Face-to-face and open-ended interview questions were used in this exploratory qualitative case study. Questions that are open-ended provide rich qualitative data

(Penwarden, 2013). Penwarden revealed that open-ended questions give the researcher an opportunity to gain insight on all the opinions on topics that are unfamiliar. Ten unstructured questions were used to elicit the views of the participants. An interview protocol was used (Appendix B). According to Jacob and Ferguson (2012), an interview protocol will provide a step by step guide in assisting the researcher throughout the interview process.

Ten teachers from two different secondary schools in western Tennessee were interviewed. Each interview lasted from 30 to 45 minutes over the course of 2 weeks. Participants teach single-gendered classes in the subjects of English, math, or science. Each interview was recorded to portray the participants' views and perspectives and to ensure transcriptions were accurate. The participants were interviewed in their natural settings which gained a better understanding of their perspectives about the topic. The timeline of the interview process includes gaining access to participants, contacting participants, and the interview.

- Month 1, Week 1: Principals were provided with the IRB approval letter as well as the letter of cooperation from the district's CAO. Copies of the interview questions were provided (Appendix B). Interested participants contacted the researcher after viewing a recruitment flyer placed in the lounges and main offices of the two schools (Appendix E). Participants scheduled a date and time for a face-to-face interview. Participants were provided with a consent form by U.S. mail as well as the purpose of the study and the role of the researcher.

- Month 1, Week 2: Teacher A, B, C, D, and E were interviewed. Each teacher received a telephone call or email two days prior to the interview day to confirm attendance. I arrived at the location 20 minutes prior to the scheduled interview. During this time, the site was checked for privacy and materials were set-up. The researcher ensured that the site was locked. The researcher brought tape recorder; interview questions; a note pad; a copy of signed consent forms; and a copy of the interview protocol. The consent form was provided and reviewed prior to beginning the interview. The researcher verbally communicated to each participant that confidentiality will be maintained, and each participant may discontinue the interview at any time.
Month 1, Week 3: Teachers F, G, H, I and J were interviewed using the same process for Teachers A, B, C, D and E. The same materials were used in this interview as well.
- Month 1, Week 4: I listened to the recorded interviews and transcribed the contents. I allowed each participant to review the completed transcriptions at a date, time, and location that was convenient for them to ensure that interpretations were thorough and accurate.
- Month 2, Week 1: I began assigning codes and identifying themes based on the interviews and notes that were taken during the interview. A highlighter was used to identify common words and phrases in noting themes based on the research questions. Each research question was listed on a separate sheet. Each code and theme was recorded under each aligned research question.

- Month 2, Week 2: I further analyzed codes, themes and research questions and summarized findings.

Trustworthiness and Reliability

In order to ensure that the data collection process was reliable and valid, each participant performed member checking. Member checking ensures that data collected provides an accurate interpretation of the responses to all interview questions (Creswell, 2012). All participants were provided in person with a complete transcript of the interview as well as one additional page of notes taken during the first interview. There were no inaccuracies that occurred during the interview process. If there were any inaccuracies reported by the participants, the researcher would have a) review the inaccuracy and revise the transcript, b) review the rights of the participant, c) give the participant an opportunity to discontinue participation in the study, and d) contact my chairperson and provide notification of the inaccuracy. This process ensured that there were credibility and trustworthiness throughout the data collection process. When participants are connected to the phenomena being studied as well as the results, data have validity and reliability (Cope, 2014).

Role of the Researcher

According to Sanjari, Bahramnezhad, Fomani, Shoghi, and Cheraghi (2014), the researcher is considered to be the research instrument, and the plan of inquiry needs to be developed and altered as the study progresses. As a result, a qualitative researcher cannot depend upon traditional approaches to address certain concerns such as bias and credibility (2014). Thus, the researcher must understand their strengths, be alert in the

assessments of situations, and competent in their abilities to choose and apply appropriate techniques. The researcher must also be sensitive to both overt and hidden assumptions associated with their chosen research process.

Although I am a principal of a high school in western Tennessee, I did not serve as a principal at the participating schools. I did not work in a supervisory role in any capacity over the teachers for the study as well as principals in which schools served as sites.

Data Analysis

Data Analysis Procedures

Creswell (2012) contended that the analysis of qualitative data works simultaneously with data collection. The method of analyzing qualitative data requires the researcher to organize, manage, synthesize, search for patterns, discover themes, and disseminate the findings relative to the data.

After the audiotapes were recorded, I transcribed the recordings within 24 hours of each interview. As I transcribed the interview responses, I continually stopped the recorder and checked my transcriptions. After transcribing the entire interview, I played the interview back to check for accuracy in my typing. I continued this process for all ten interviews.

I performed member checking by asking each participant to ensure that the transcriptions accurately portrayed each teacher's responses to the interview questions. Each participant was contacted and agreed to meet face-to-face to review the completed transcripts. All participants met at an agreed upon location to view the transcripts.

After ensuring that all transcripts were accurate, I began analyzing the data from the interviews. According to Creswell (2012), data analysis indicates that researchers analyze the data, represent it in tables, figures, and pictures, and explain it to develop answers to research questions and statements asked in the research. In this study, the first step of data analysis was to review all interview transcripts and notes and begin the coding process. I first began the process of listing both research questions on paper. I then categorized each interview question under the research question it addressed. I then listed participant responses for the interview questions under each research question. The ten teachers who were interviewed used pseudonyms *Teacher A-J* to ensure that their identities were confidential. This is also how I was able to accurately differentiate responses.

The matrix approach was used for analyzing the data. The matrix consists of the coded elements and data chunks categorized by the participants' pseudonym. According to Glaser and Laudel (2013), codes are tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study. Codes usually are attached to 'chunks' of varying size—words, phrases, sentences, or whole paragraphs, connected or unconnected to a specific setting.

Furthermore, the process of coding data was utilized in organizing data. Coding is described by John Creswell as the process of segmenting and labeling text to form descriptions and broad themes in the data (2012). Coding assisted in making sense of the interviews conducted from the teachers who utilize single-gender instruction. Based on the literature, an anticipated code was motivation when referencing African American

males in reading. After reviewing the transcripts, motivation was a code that appeared to be present in four out of ten of the interviews when referencing both boys' and girls' participation in class. As I marked each code within the text, I noticed 28 different codes in which I began to gather meaning. According to Creswell (2009), codes that are surprising and of conceptual interest to readers may also be identified. Based on my experience as a principal, combinations of predetermined and emerging codes were utilized in this process. I wrote a combination of phrases and key ideas from the interviews on a separate sheet of paper that were possibly significant in my analysis. I then began to find commonalities from the codes. There were certain points that continued to appear in interviews. Interview responses were relative to the research questions and supported literature and research.

Procedures for Dealing with Discrepant Cases

Category filing was used to ensure that codes and themes were organized. Reflective notes were used as I read through the data in order to track my own speculations and impressions of each interview. It is important to separate the thoughts and opinions of the researcher from that of the participant (Glesne, 2011).

Symbols and categories were assigned to codes and themes in order to segment data. As suggested by Creswell (2009), this process consisted of finding the most descriptive words for topics to be used as categories. In examining the pedagogical practices of teachers teaching African American students in single-gender classrooms, each practice was assigned a symbol. In understanding the experiences of teachers, themes were categorized in order to analyze the relationships of the data.

Findings

The purpose of this exploratory qualitative case study was to focus on the topic of whether the single-gender classroom has helped educators meet the needs of African American students. I examined one school district's use of single-gender classrooms to determine their perceived effectiveness in educating African American students. Specific interview questions were asked to address the following research questions:

RQ 1: What are teachers' experiences with single-gender classroom instruction for African American students?

RQ 2: What pedagogical practices do teachers perceive as effective to use with African American students taught in single-gender classrooms?

The following section is an analysis of the data collected, organized by research questions and those instruments which aligned to them.

Research Question 1

Research Question 1 was answered via Interview Questions 1, 2, 4, 5, 9, and 10. Interview Question 1 addressed the experiences teachers had teaching African American students in single-gender classrooms. Teachers A, C, E, and G had 2 years' experience teaching in this setting. Teachers B, D, and J had 3 to 4 years' experience, and Teachers F, H, and I had 5 to 7 years teaching African American students in single-gender classrooms.

Teachers were asked to explain their views of educating African American boys and girls separately in Interview Question 2 also addressing Research Question 1: What are teachers' experiences with single-gender classroom instruction for African American

students? All teachers stated that they were in favor of this practice. Teacher C stated, “When students enter high school, maturity levels are still low. Single-gender classes help them to focus on their work.” Teachers A, F, and H added to this experience by noting that separating boys and girls resulted in fewer distractions. “There is less drama,” Teacher F stated. Teacher D and J referenced classroom management as the main reason why single-gender classes are favored “even more than academics.” Classroom management was a response to Interview Question 2, but this code reappeared in the answers of other interview questions.

Continuing to address Research Question 1, participants were asked Interview Question 4 to describe the advantages and disadvantages of single-gender classrooms for African American students. Again, classroom management was noted by Teachers A, D, and I as an advantage. Participants listed a number of social responses as advantages to single-gender classrooms for educating African American students. Teacher C stated, “You are able to build a sense of community.” There are things that affect black boys that they won’t talk about around girls.” This seemed to be apparent among African American girls in classrooms as well. Teacher F answered, “Girls even felt comfortable talking about menstrual cycles or whatever was about themselves as young women.” Teacher J stated that it was easier to create peer support among a group of students who were the same gender. Participants also listed academic advantages in utilizing single-gender classes. Teachers B and E noted the ability of teachers to adhere to the differentiated learning styles of boys and girls. Teacher B stated, “Girls and boys don’t learn the same. I am able to pay attention to those different learning styles.” Teacher E explained that this

is expected in traditional classes but adds, "...at times, it does not happen, not well anyway." Teacher H added to the academic component of single-gender classrooms, "Small groups are so much easier." Small group instruction is a strategy used by teachers to differentiate learning for students. Teachers I and D also noted that single-gender class structures make for more effective small group learning. Teacher A added that when students are educated with their own gender, they seem more attentive and willing to learn.

Teachers were asked to explain their perceptions of single-gender classrooms to educate African Americans in Interview Question 5. All teachers stated that they saw more of a benefit in teaching African American boys in this setting. Teachers B and G noted that they perceived this setting to be a likely option for any race of students, not specifically African American. Teacher D referenced the achievement gap existing among African American students and addressed single-gender instruction as a means to provide a more individualized learning experience. There was only one participant that stated that there had never been a consideration of race prior to teaching single-gender classes.

Teachers were asked Interview Question 9, which focused on the learning differences of boys and girls to help answer Research Question 1. Participants described the characteristics of learning for each gender and noted how different both interact in classrooms. Participants stated that girls were "more ambitious" in regards to how they approached learning versus boys who needed more motivation in the learning process. Teacher D stated, "Boys are better thinkers but are unorganized." Girls are more

responsive and engaged while boys require more hands on activities. These beliefs by teachers support the framework of brain-based learning as a practice in addressing the specific and differentiated ways males and females learn. Teachers B, D, E, and I all corroborated this theory reflecting that boys tend to be more kinesthetic and active while girls seem to have higher literacy rates and strive to make better grades. Supporting the social cognitive theory, boys were observed as performing better when they are able to be competitive as noted by Teacher H. Girls, though, were said to be “highly motivated but passive and less likely to ask questions”.

Interview Question 10 asked teachers if they preferred to teach African American students in a single-gender classroom. All participants were in favor of this practice and preferred it to teaching traditional classes. Teacher A stated that when he first began teaching single-gender classes, he did not prefer the practice. He stated that he had very little training to prepare him for African American boys, and that he struggled with managing student behaviors. “I was unable to reach them, and they were failing academically”, according to Teacher A. He also concluded that after learning “how and why” boys learn; he now is in favor of single-gender classes to teach African American students. By analyzing participant responses under Research Question 1, two themes emerged from Interview Questions 1, 2, 4, 5, 9, and 10.

Theme 1: classroom management. All teacher participants described classroom management as being a favorable experience in teaching African American students in single-gender classrooms (Interview Question 1). When asked Interview Question 4 about the advantages and disadvantages of single-gender classrooms for African

American students, Teachers A, D, and I listed classroom management as an advantage to single-gender classes. It was noted that teachers experienced fewer distractions in single-gender classrooms (Teachers A, F, and H). Managing student misconduct is a common challenge for educators and can result in teachers being less effective in successfully reaching academic goals. Teachers who educate African American students in single-gender-classrooms are experiencing less classroom management issues and see this as a benefit in teaching an underserved population of students.

Theme II: learning styles. Interview questions posed to participants allowed me to identify specific learning styles that teachers encountered by African American students in single-gender classrooms. When asked about the indications of students being successful during a lesson, participants had very similar responses. Teachers noted that in successful classrooms, students were engaged in the lesson and participated in both asking and answering questions. Teacher A commented that students who were able to ask good questions seemed to perform better with assignments in which they had to problem-solve or think critically. Teachers noted that student success was incumbent upon being able to handle distractions. Teacher E stated, “When students stay on task and follow directions, they are usually able to meet the objectives for the day.” Participants also suggested high level indicators to determine student success. “When students make their own connections, you know they are going deeper into the content”, said Teacher D. “Students being able to apply what they have learned show that they have mastered the content”, added Teacher G.

Responses about learning differences observed from boys and girls supported the

importance of considering learning styles of genders when teaching students. Many answers from participants validated the theory of brain-based learning as being valuable in successfully educating African American students. Teacher F stated, “Girls are more auditory learners. I can’t expect my boys to sit through me lecturing them longer than even seven minutes. They just don’t learn that way.” Teacher I added, “Boys are so visual and kinesthetic. To me, they learn better with a variety of techniques. Girls can actually be successful with one style.” Brain-based learning also describes subjects or skills that specific genders are often most successful because of the anatomical structures of their brains.

Participants confirmed these theories in their answers. “My girls have higher literacy rates than my boys”, according to Teacher B. “Boys don’t have much interest in English, but science peaks their interest a lot”, said Teacher I. Teacher D noted boys to be unorganized but also stated that they were “better thinkers” than girls. Teachers also claimed that they used specific learning styles in creating tasks for each gender. Teacher H described knowing that boys have a competitive nature as being useful when creating activities. Teachers also added that boys learn best when they are using their energy through lessons that allow movement throughout the classroom, while girls should be allowed to use their creativity and collaborative abilities when learning.

Research Question 2

Research Question 2 was addressed by Interview Questions 3, 6, 7, and 8. Research Question 2 addressed the pedagogical practices teachers perceived as effective to use when teaching African American students in single-gender classrooms. Interview

Question 3 asked teachers to discuss instructional strategies they used in single-gender classes, and how they differed from traditional classes. Teachers C and F both stated that strategies they have used in both single-gender and traditional classes are very similar, but it is easier to move at the rate of learning that is most appropriate for learners.

Teacher C, “I use a lot of scaffolding. Girls learn at a faster rate in some subjects like English, but boys seem to have a higher rate of learning in science.” Further supporting the social cognitive theory of learning where children tend to learn better in situations that represent familiar social environments, teachers expressed that they provided students with learning opportunities that were specific to traditional gender roles.

Interview Question 6 asked teachers to describe an effective lesson in single-gender instruction. Teachers perceived a lesson to be effective when students appeared to be engaged and made independent connections about the learning. Teacher A, “Students are justifying their answers and asking clarifying questions. This is how you know they are really thinking critically.” Teachers being facilitators in the learning was described by Teacher C and H. “It is important to have a balance of teacher and student-centered learning”, explained Teacher E. Reviewing the comments of the participants, teachers believed it important to know their students and what is relevant and important to their particular gender. Teachers stated that this knowledge helps to teach real-world application and conceptual understanding of content which was stated as an effective lesson. For example, when teaching math, an instructor may use word problems that appeal to the interest or real-world experience of a specific gender.

Teachers were able to expound on their beliefs by their responses to Interview

Question 8 which asked how they determined what pedagogical practices to use. Teacher A said, “Initially, I did not know. I was not really trained on how to teach to a specific gender, and I struggled.” The research from brain-based learning was referenced by teachers who stated understanding that male and female brains are different is pertinent. “Why would we expect girls and boys to learn the same?”, noted by Teacher J. “You have to know where girls are coming from and what matters to boys”, Teacher B adds. I gathered from responses that teachers use practices that support how each gender thinks and processes information as supported by the theory of brain-based research. Aligned to the social cognitive theory, teachers also adjusted practices based on the societal and emotional experiences of their students.

After reviewing all codes within the transcripts and color coded common phrases and comments, there were specific themes that were consistent among the participants and answered the two research questions. By analyzing participant responses under Research Question 2, one theme emerged from Interview Questions 3, 6, 7, and 8.

Theme III: instructional strategies: The instructional strategies used by teachers were identified in Interview Questions 3, 6, 7, and 8. Participant answers allowed me to identify instructional strategies among educators that they perceived to be effective with African American students in single-gender classrooms. These responses by participants addressed Research Question 2. All teachers reported that they used small groups as a strategy to help address the differentiated learning needs of their students. Participants articulated cooperative learning groups as very effective in ensuring that students collaborate with their peers. Teacher B stated that grouping has specifically helped to

teach complex text to students at various reading levels. Student-centered lessons were also noted as a strategy to ensure student engagement and attentiveness. “I make sure that there is a balance between me and the student. I serve as a facilitator as often as possible”, said Teacher C.

Teachers also listed strategies that were also common in co-educational classrooms. Participants confirmed that differentiation and scaffolding were important practices in student learning but were crucial in addressing the needs of low performing students. Teacher G stated, “Girls learn at an increased rate and require less teacher support. Educating boys and girls separately allows me to really scaffold content for boys without watering it down for girls.”

Teachers corroborated social cognitive theory by expounding on their use of student interests and experiences in selecting pedagogical practices in their classrooms. Using the competitive nature of boys to determine what would be most effective in reaching them was a response from Teacher J. Teachers commented on the ability to “build a sense of community” among the single-genders as a benefit to the teaching and learning experience. Teachers also discussed the different experiences that teenage girls and boys experience and the impact on their success in school. “I can imagine that being a black boy in society today is tough. I use this experience when I select text and create learning activities”, stated Teacher B. “It is so much easier to conduct a Socratic seminar or philosophical chairs with girls. They like to talk, so I use this to my advantage when I plan lessons”, added Teacher D. Most teachers listed class dialogues and discussions as an effective practice used in teaching African American students in single-gender

classrooms.

When asked about the teacher actions that were associated with student success, participants listed responses that impacted students both academically and emotionally. Participants stated that when teachers checked for understanding in ways that appealed to the specific gender, students were more likely to be successful. For example, Teacher C revealed that girls tended not to ask as many questions as boys. With this in mind, it may be more beneficial to find alternative ways to check for comprehension. Teachers also referenced creating a collegial environment where students felt comfortable to make mistakes helped students to be successful. Teachers described the teacher action of modeling speaking accountably with students as a strategy.

Teacher answers also represented actions that affected the emotional well-being of students. Teacher B noted that listening intently to students helps to understand what areas they need help. “Teachers who praise their students and laugh with them show students that they believe in them”, Teach G stated. “Asking students about who they are and where they come from show that you see them as individuals”, claimed Teacher E.

Evidence of Data Quality, Accuracy, and Credibility

According to Noble and Smith (2015), assessing the reliability of study findings requires researchers to make judgments about the ‘soundness’ of the research in relation to the application and appropriateness of the methods undertaken and the integrity of the final conclusions. Thus, the researcher must demonstrate thoroughness, consistency and accuracy when undertaking qualitative research because there is no accepted consensus about the standards by which such research should be judged. As suggested by Gibbs

(2007), transcripts were checked for mistakes as well as the meaning of codes during the process of coding. In order to ensure that each interview was transcribed accurately, I first listened to each interview in its entirety. I did this to ensure that there were no irregularities in the recordings. I then played a portion of the interview recording and stopped to transcribe what was heard. In most instances, I listened to each portion twice in order to capture each word articulated by the participant. At the end of each interview, I listened to the recording and followed along with the transcription to check for accuracy in typing. For most interviews, I was able to complete this process two to three times before I achieved accuracy. For some, I completed the process up to five times. After completing each transcription, I read through each to check for typing errors.

Member checking was used by providing participants with specific descriptions and themes to ensure that an accurate representation of the findings was presented (Creswell, 2009). I contacted each participant by phone to arrange a meeting, so that they had an opportunity to check all transcripts to ensure accuracy and to avoid misrepresentations of the recorded data. Each participant agreed to meet face-to-face in a location that was convenient for them. Each participant received a written copy of their interview transcript and was given an opportunity to read the contents as we sat together. All with the exception of two participants agreed that the transcriptions were accurate. Two participants made note of grammatical errors that were present in their transcript. I documented the notation and changed the error on my laptop computer. They were then given time to view where I made the change related to a grammatical error. Each participant was then provided with a \$5 Starbucks gift card as a token of appreciation for

participating in the research.

After ensuring that all transcriptions were accurate, I triangulated the data between the various interview questions. I first organized interview questions under each research question by recording either RQ 1 or RQ 2 by each relative corresponding question. I then began to note codes that appeared among participant responses by marking a pseudonym that could easily identify and represent the particular code. For example, when motivation was noted in responses, the letters MO were placed above the word. This enabled me to later quickly identify when and how many codes were present within the transcripts in order to identify common patterns or themes among the data. I then listed each of the 28 codes identified and began to highlight by various colors all representations that were related or similar. Organizing patterns by colors provided me with a visual interpretation needed to begin developing common themes among the interview responses. In order to organize participants with responses and to better track participants to specific codes, I marked each participant's pseudonym by each code that was represented in their response. For example, "kinesthetic" was a code that occurred in the transcripts of Teacher B, D, and E referring to boys and learning. The letters B, D, and E were marked by the code BK. After reviewing the highlighted codes, themes were then developed based on the analysis of the codes.

Conclusion

An exploratory qualitative case study was the best way to examine the use of single-gender classrooms to determine the perceived effectiveness in educating African American students. This methodology addressed the research questions that helped to

understand the experiences of teachers using single-gender classrooms to educate African American students. By interviewing participants for this case study, pedagogical practices were examined in implementing single-gender classrooms as well as its perceived effectiveness by teachers. The intended outcome of this exploratory qualitative case study was to explore what is known about the practices of single-gender instruction as it applies to the academic achievement of African American students in western Tennessee.

Section 3: The Project

Introduction

The culminating data from this study led me to development this project. The project is intended to enhance how teachers educate African American students in single-gender classrooms. Teachers and administrators will be provided with a professional development opportunity to gain additional strategies to help better educate African American students. In this section, I provide details of the project, and discuss my goals and rationale for developing this professional development training.

Description and Goals

A professional development training will be implemented as a result of the data analysis. This project will provide teachers a learning opportunity to enhance how African American students are taught in single-gender classrooms. To date, African American students in western Tennessee perform considerably lower than students in other districts in Tennessee (TDoE, 2015). Participants indicated in interviews that they received very little training about single-gender classrooms. They have also engaged in limited dialogue about the learning styles of specific genders. Teachers also noted that students experienced a lack of motivation and self-confidence in difficult courses. As a result of this training, teachers will gain additional strategies that may be beneficial in teaching African American students in single-gender classrooms. This professional development will consist of 3 full days of training that will highlight strategies to assist teachers in their implementation of single-gender classrooms as a practice. Participants will also be introduced to self-efficacy as an approach to motivating African American

students.

Teachers will gain an understanding of teaching students in single-gender classrooms. Teachers will (a) understand the history of single-gender classrooms and what research suggests about its impact on teaching and learning (b) analyze disadvantages and advantages of single-gender classes according to research and (c) define and understand self-efficacy and its impact on practice. Based on my findings from teacher interviews, there is an increased need to understand how specific student groups learn best as well as how to increase motivation and perseverance through academic challenges. Teachers have indicated that there are notable differences that must be acknowledged and utilized in planning and teaching.

I will introduce self-efficacy—a tenet of Bandura’s social cognitive theory—to teachers as a practice to help motivate African American students to take ownership in their learning. As teachers expressed in their interview responses, students are more successful when they exhibit self-esteem and confidence in their ability to be successful in school. As a result of the professional development, teachers and administrators will learn how to create a culture of self-efficacy within their classrooms and schools.

This 3-day professional development training will consist of 7 hours of learning each day with a 1-hour lunch and two 15-minute breaks. Teachers and administrative staff will engage in cooperative learning activities, PowerPoint presentations, and opportunities to engage in team dialogue. Participants will conclude the training with an in depth discussion of the advantages and disadvantages of single-gender classrooms according to a peer-reviewed article.

Rationale

Three themes emerged from the interviews of 10 teachers. Classroom management, learning styles, and instructional strategies resonated from the responses of the participants who used single-gender classes to educate African American students. All teachers stated that classroom management was one of the most favorable aspects of educating males and females separately. Participants articulated the varying learning styles of both genders, and noted that there are significant differences in how girls and boys learn. Considering these differences, teachers indicated the need to provide instructional strategies that complemented how students of each gender learn best. Some teachers stated throughout the interview that they received very little training or preparation in teaching single-gender classes, but noted that it is imperative for teachers to recognize that females and males learn differently (Teachers B and E). Participants continuously articulated the importance of knowing their students and what they value as individuals. Teacher A stated that he was initially unsuccessful with reaching his male students, specifically African American, until he learned “how and why boys learn.”

This project could address the ability of teachers to thoroughly understand how to meet the differentiated needs of African American male and female students. As a result of this training, educators will gain specific strategies that can be used to teach students in single-gender classrooms. Participants will receive information that will be beneficial in increasing self-confidence and motivation among African American students to improve the academic and social cultures of the educational environment. Participants will also engage in discussion about the possible advantages and disadvantages of implementing

these strategies as a practice.

Review of the Literature

In this literature review, I determined professional development as the best approach to disseminate information based on findings from teachers educating African American students in single-gender classrooms. I also highlight Mezirow's transformative learning theory and Kolb's experiential learning theory to support professional development as an appropriate genre.

Professional Development

Considering accountability demands for educators, it is essential for principals to provide professional development opportunities for their faculty that will meet the diverse needs of their students (Alvoid & Black, 2014). Professional training allows growth and development in areas that may be deficient. Participants tend to show improvement after engaging in these opportunities (Hudson, 2013). Holm and Kajander (2015) conducted a study in the Canadian Province of Ontario that included observations of 14 teachers over a period of 3 years. Teachers with varying beliefs and knowledge participated in a mathematical professional development. The researchers found that regardless of initial beliefs and capacity, all teachers experienced growth as a result of the professional development (Holm & Kajander, 2015). Professional development can, therefore, be effective in helping participants gain a new understanding of content regardless of their current level of mastery.

Although professional development can be effective in acquiring new and useful knowledge, it is imperative that learning is relative and differentiated based on the needs

of the participants. In order for professional development to be considered useful to teachers, it must bridge the gap between theory and practice (El-Dedhaidy, Mansour, & Aldahmash, 2015). Teachers must be able to gain practical understanding of the newly acquired knowledge to implement in their daily teaching. According to Bayer (2014), effective professional development (a) coincides with the needs of teachers and the school, (b) involves teachers in the design, planning and actively participate, (c) encourages long term engagement, and (d) requires high quality instructors. Researchers have contended that teachers are unable to make paradigmatic shifts because they have not been adequately prepared to do so (Avery & Reeve, 2013; Phillips & Weingarten, 2013). In this project, I will use professional development as a means of providing teachers with instructional strategies and skills necessary to successfully educate African American students in single-gender classrooms.

Although most teachers will participate in various opportunities to improve their practice throughout the course of their careers, these interactions must prove beneficial in order to impact student achievement. According to Desimone (2011), there are essential features that must be present in effective professional development regardless of the content connected to the learning. Desimone contended that there should be a clear content focus to assist instructors with teaching specific subject matter. Participants should also have an opportunity to engage in active learning requiring them to present information and seek as well as provide feedback. All professional development should have a coherent alignment to the school and district goals, and should include at least 20 hours of contact with practicing the new learning.

Desimone (2011) concluded that collaborating with colleagues allows essential time to interact and form learning communities. The proposed project will offer examples of content specific learning that teachers can use in not only core, but also elective classes. Participants will actively engage in question and answering, think-pair-sharing, and report-outs in which they will work collaboratively with colleagues. All learning opportunities presented in the 3-day professional development are aligned to the school and district goal of preparing students for college and career endeavors.

Mezirow's Transformative Learning Theory

This professional development will be guided by Mezirow's transformative learning theory. According to Mezirow (2011), transformative professional development can be most effective in transforming the experiences of both teachers and students by providing teachers with learning that targets their professional and personal interests. Professional development must be effective and continuous in order to be truly transformative (Mezirow, 2011). Transformational learning is further described as learning that transforms problematic frames of reference to make them more apt to change through more inclusive, reflective, and discriminating practices (Howie & Bagnall, 2013). Through this training, teachers will be more adept with the skills needed to address the demands of students who are identified as at-risk for academic failure due to racial, socioeconomic, and gender-related factors. Participants will be provided with strategies that they can use in planning and teaching lessons that will enable African American males and females to be successful.

Single -Gender Education

Students who are educated in single-gender classrooms are able to learn in a setting that is more conducive to their natural assets as a gender (King & Gurian, 2006). A recent study conducted among 109 middle school female students indicated that there was a higher student satisfaction rate in single-gender classes than traditional classes (Hart, 2015). The study noted that the students taught in single-gender classes adjusted to better to the transition to middle school. Female adolescent students often exhibit difficulties adjusting to the pressures of social conformity in upper grade levels (Ryan, Sungok, & Makira, 2013). There are even higher numbers of depressive symptoms, eating disorders, and other psychological issues among females (Ferrerio, Seonae, & Senra, 2012). These findings suggest that the emotional and psychological development of female students warrant attention in schools in order to ensure a positive emotional experience.

In single-gender classes, male students are encouraged to access their abilities to be more impulsive, kinesthetic, and single-task focused than female students (Williams, 2014). These actions may be considered as problematic in regular classroom environments, therefore, negatively impacting both teacher and student experiences. Studies have, in fact, highlighted the overrepresentation of African American male students receiving suspension from schools (Piechura-Couture, Heins, & Tichenor, 2011).

Harnessing cognitive abilities according to a specific gender can make learning meaningful and help to develop necessary life skills that promote future success (Starcher

& Allen, 2016). Research indicates that African American male students favor being educated separately and believe that their grades, focus and abilities increase in settings that support their biological differences (Piechura-Couture, Heins, & Tichenor, 2013). Social anxieties can also be minimal in single-gender settings positively impacting academic performance, focus, and engagement (Hart, 2016).

Saidin (2012) conducted a study of Malaysian boys who were taught language in single-gender classrooms. The study concluded that single-gender education coupled with brain-based teaching strategies resulted in higher motivation and confidence levels among the boys involved in the study. Students who are educated in single-gender classrooms also have an opportunity to increase their level of understanding in their areas of deficiency, as well as to further expand their interests in a setting that allows them to be uninhibited (Brown, 2013). A focus on improving levels of understanding and interest is substantial in gaining leverage in increasing achievement among African American students. In the interviews, participants noted specific and diverse learning outcomes by both genders. They reported that girls employ logic and verbal communication more effectively as compared to boys who tend to respond to manipulatives and visuals that are provided in lessons. If educators are to successfully achieve the academic needs of students, instruction must be differentiated to include teaching and learning that caters to these diverse expectations.

Kolb's Experiential Learning Theory

The acquisition and processing of information lends to the differences in learning

styles that are present in classrooms across America. As a result, brain researchers have stressed the importance of multi-dimensional teaching models to address the different ways students learn (Alavinia & Farhady, 2012). Kolb's Experiential Learning Theory (ELT) (1984) addresses learning styles based on the hemispheres of the brain. ELT assesses learning styles using the learning Styles Inventory (ELT). The ELT consists of four modes that make up the experiential learning cycle: Reflective Observation, Active Experimentation, Concrete Experience, and Abstract Conceptualization (RO, AE, CE, and AC). Learners are then classified as one of four learning styles:

- Accommodators-Dominant learning is from concrete experience and abstract conceptualization. These learners act on feelings rather than logic and enjoy new experiences while learning by doing (Kolb & Kolb, 2005).
- Divergers-Combined learning is from concrete experience and reflective observation. These learners are active and enjoy brainstorming and gathering information. They are imaginative and work well in collaborative groups (2005).
- Convergers-Learning is a combination of active experimentation and abstract conceptualization. These learners have advanced reasoning abilities and enjoy experimenting with new ideas and practical applications (Smith & Kolb, 1996).
- Assimilators-Learning is best obtained through abstract conceptualization and is processed through reflective observation. They enjoy readings and

lectures and learning by thinking and observing.

Every student has an individual learning style, and each style enables them to be able to perceive and process skills and information (Boyatzis & Kolb, 1997). When teachers and students are knowledgeable of the functions of both the right and left hemispheres of the brain and how they work in unity, the capacity to make connections and cater to the nature of both are possible. When teachers are able to identify the experiential learning style of their students, they are able to better differentiate learning activities to promote worthwhile educational experiences for all students.

Self-Efficacy

Self-efficacy is a tenet of the social cognitive theory that fosters the belief that how students perceive their academic capabilities can impact their academic success. Bandura (1986) determined that the outcomes individuals anticipated greatly affected how they performed in given situations. Self-efficacious students are reported as working harder than other students. Evidence has shown that they are more persistent and have fewer emotional distractions when they encounter difficulties (Bandura, 1997). A recent study among students transitioning to middle school showed that students' perception of their own ability to be successful in a school setting positively impacted their experiences in classrooms (Madjar & Chohat, 2017). Students who express the expectation of an enjoyable and positive outcome are more likely to have a successful experience (Waters, Lester, & Cross, 2014). Therefore, students who have a better self-concept and self-esteem have a heightened capacity to commit to learning.

Self-efficacy substantiates the belief that confidence in one's ability to perform

can reflect in their performance. A study conducted by Kost-Smith (2011) measured the success of students taking an introductory physics course and found a correlation between self-efficacy traits of students and their test grades. In this study, self-efficacy traits predicted students passing the efficacy course (Sawtelle et al, 2012). It is my goal to introduce self-efficacy as a practice that can positively affect the learning outcomes of African American students in at-risk communities. Teachers will learn strategies that will enable them to create classroom cultures that suggest to students that through effective effort, students can achieve their academic goals.

Many educators operate within the innate ability paradigm which is based on the assumption that there is a distribution of intellectual capacity and its relationship to learning capacity (Chase, 2012). These individuals share the belief that people are born with a certain intellectual capacity which impacts their ability to learn at certain levels. The goal of the 3-day professional learning will challenge educators who operate in a fixed mindset. Teachers will receive information that supports a growth mindset that enforces through hard work and determination, all students can achieve at high levels.

Implementation

Potential Resources and Existing Supports

In order to implement the professional development training for teachers from both schools involved in the project study, specific resources will be needed. The 3-day training will require adequate space to house a total of 60 participants. The space must contain appropriate seating with tables to enable teachers an opportunity to work and collaborate. There must also be technology available in order to provide participants with

a PowerPoint presentation.

Funding will also be necessary in order to provide participants with materials needed to facilitate the learning. During the 3-day professional development training, participants will be provided with various supplemental materials such as copies of the PowerPoint presentation to reference, worksheets, and templates used throughout the training as guided practice and independent work. These materials would require paper, ink, and access to a copy machine. Being that the professional development would require a number of hands-on activities, it may be necessary to hire someone to assist with implementing the 3-day workshop. This individual would assist with signing in participants, helping with technology set-up, and ensuring that participants have all of the necessary supplemental materials in order to participate in the learning.

Potential Barriers

There may be potential barriers that may impact the effectiveness of the 3-day professional development training. There may be some teachers who are apprehensive about participating in this training in addition to a variety of other professional learning that they have encountered throughout the year. There may also be teachers who have preconceptions about self-efficacy and its correlation to student success. In order to decrease those potential barriers, I plan to provide the principals with a brief introduction of Mezirow's transformational learning theory to provide to the teachers during their faculty meeting leading up to the 3-day professional development training.

Proposal for Implementation and Timetable

The proposed timeline for implementing the 3-day professional development

training will be in the middle of May. Each day will consist of 7 hours of training with a 1-hour lunch and two 15-minute breaks. Presenting the training at this time will be at the conclusion of all state mandated assessments. Teachers will be more receptive to receiving new learning. Presenting the information to the schools' faculty and administration at the end of the school year may also provide new insight to planning for the next school year.

Roles and Responsibilities

During the implementation of the 3-day professional development, my role will be the presenter of the training. My responsibilities will include creating a space that is conducive for professional learning and collaboration. I will be responsible for organizing the tables and seating for participants and making copies that will be distributed during the training. I will also be responsible for presenting the information for each day and facilitating the learning that will be both independent and collaborative.

The principals of the schools will be responsible for ensuring that their teachers and administrators are present. All participants will be responsible for being present and ready to engage in the activities each day. Participants will be responsible for attending all 3 days of the professional development as each component is essential for the transformation of practice.

Project Evaluation

The purpose of the 3-day professional development training is to provide

educators with strategies to effectively teach African American students. The goals of the professional learning are to equip educators with information regarding single-gender instruction and self-efficacy as tools to help at-risk student populations to be successful in western Tennessee. A formative and summative assessment will be used to evaluate the effectiveness of the professional development. The goals of the formative and summative assessments are 1) to determine whether the content is applicable and beneficial to the participants, 2) to measure whether the materials are useful and appropriate, and 3) to ensure that the process for implementing the training is effective and convenient for the participants, and 4) to determine if participants understand the content of the first day.

A formative assessment will be administered after the first day of the professional development. Formative assessments provide feedback and may identify possible changes that may be needed to impact the successful implementation of a project (Havnes, Smith, & Ludvigsen, 2012). Participants will complete a survey after the first day of the training to provide feedback of the information that is given as well as the manner in which it is presented. I will view the formative assessment data that same evening and determine if changes should be made for the following day. If it is determined that modifications should be made based on the feedback from the participants, changes will be made to the presentation in order to ensure the success of the professional development.

At the conclusion of the 3-day professional development training, a summative assessment will be administered to all participants. Unlike a formative assessment, a summative assessment does not allow one to reflect on feedback to change the process of

the implementation (Blyth & Davis, 2013). A summative assessment serves as a final evaluation of a program or process. Participants will be provided a final survey to complete that will measure if they believed the professional learning to be beneficial and useful in their practice. The summative assessment will also determine if the manner in which the information was provided was also adequate and convenient. I will use the results of both assessments to inform implementation of future professional learning opportunities that may be provided to educators in the area. Administrators, teachers, and district personnel may use the assessments and the results to inform future professional development on brain-based learning and self-efficacy as a practice to enhance teaching and learning for African American students.

Implications Including Social Change

Local Community

The 3-day professional development training can have a positive impact on the participating schools as well as all schools in western Tennessee. The local problem in this study addressed African American students in western Tennessee performing significantly lower than students in other districts in Tennessee. The purpose of the study was to explore single-gender classrooms as a practice to address this problem. Based on interviews from teachers using single-gender classes to teach African American students, many educators still struggled to provide pedagogical strategies to African American students even in single-gender classes. The professional learning offered in this training will provide administrators, teachers, and staff with an understanding of brain-based instruction as a strategy to differentiate teaching and learning opportunities that can

impact both male and female students. Participants will also understand the components of self-efficacy and its impact on student achievement among minority student populations. Having this knowledge will assist educators in raising academic achievement among at-risk students in western Tennessee. Increasing academic opportunities for these students will in turn increase the employability rate in the city as well as decrease socioeconomic hardships that impact at-risk groups.

Far-Reaching

My project has the potential to influence educational communities outside of western Tennessee. Districts across the nation also face low academic achievement among minority sub-groups. Many teachers lack the pedagogical competencies necessary to reach at-risk students, specifically African American males. At the conclusion of my project, administrators, teachers, and staff will have strategies that will enable them to improve teaching and learning for both female and male African American students. This training can be provided as a development tool for all educators using single-gender classrooms as a practice. Schools across America may utilize the components of self-efficacy as a means to transition educational communities from a fixed mindset to a growth mindset. These strategies can improve the self-perception and self-confidence of students who have historically been regarded as intellectually inferior.

Conclusion

This section detailed the development and implementation of a 3-day professional development training. The goal of this project was to provide educators with strategies to

effectively teach African American students by providing a PowerPoint presentation and supplemental materials through guided practice and individual goal-setting.

Based on data from teachers who use single-gender classrooms as a practice to educate African American students, there is a need to provide additional training to equip teachers with skills to implement this practice successfully. The goals of the professional development were to provide educators with information regarding single-gender classrooms and self-efficacy as tools to help at-risk student populations to be successful in western Tennessee. Teachers will gain practical strategies that can be implemented in both single-gender and traditional classrooms. After implementing this training, schools may see an increase in academic achievement among African American students. Students may also develop more self-confidence in their abilities to achieve at high levels.

The last section will provide an outline of the reflection and conclusion of this study. The project strengths and limitations will be addressed to identify how this research can impact educational practice. The development and evaluation of the project will also be addressed as well as my analysis as a learner. The section will conclude with a discussion of implications and the possibilities of future research as a result of this study.

Section 4: Reflections and Conclusions

Introduction

This project study was implemented to provide educators with strategies to better enhance teaching and learning in classrooms that serve African American students. It was

designed to provide teachers with strategies to better meet the needs of female and male students. I interviewed teachers in two schools in a district using single-gender classrooms to determine the perceived effectiveness of this practice. The qualitative data from the interviews revealed that teachers perceived single-gender classrooms as an effective practice in educating African American students. The data also showed that teachers received limited training on implementing teaching that was specific to girls and boys. Teachers expressed a need to further understand and to gain strategies to increase the success of students in their classes. My goal in this project was to help educators gain an understanding of effective strategies that support how they plan and implement instruction that is geared towards the differentiated ways girls and boys learn. Educators will also be able to identify specific skills and strengths associated with each gender to improve teaching and learning. The project for this research study is a 3-day professional development training opportunities for all educators—including administrators—in the two schools that participated in the case study. It is my hope that this training will help educators better serve the needs of all learners in both traditional and single-gender classrooms. In this section, I detail the analysis of myself as a scholar, a practitioner, and a project developer. I also highlight the study's implications, applications, and directions for future research, and its potential for social change.

Project Strengths

This project has several strengths. Educators at each school who were not involved in the case study will have the opportunity to participate in the 3-day professional training. This will allow the schools to build capacity among all teachers at

both sites. Although the case study focused on single-gender classrooms, educators who teach traditional classes will also have an opportunity to gain knowledge of strategies that will enhance teaching in learning in their classrooms. Finally, a 3-day training allows educators enough time to receive valuable information as well as adequate time to develop an action plan to apply learning for the next school year.

Recommendations for Remediating Limitations

The project includes some limitations as well as strengths. Although strategies will be presented to help change the mindset of teachers and students, there may be some teachers who have preconceptions about brain-based learning and self-efficacy. Furthermore, some teachers may possess predisposed beliefs that students are born smart, and may enter the learning opportunity with a fixed mindset. This belief system may impact their receptiveness to the information that is presented in the training. Possible remediation of this limitation may be to assign reading material about brain-based learning and self-efficacy prior to the professional development. An article that details the implementation of these strategies at schools that share the same demographics of students may be beneficial in changing teachers' perspectives. Providing this reading material may also allow teachers to have some degree of prior knowledge about both strategies so that they are able to focus more on how they will apply the learning to their classroom settings, instead of first establishing that there has been proven successes.

Another potential limitation to this project may stem from the absence of students in the training on self-efficacy. Self-efficacy directly involves changing the mindsets of both student and educator. This is a strategy that must also be implemented by students in

order to garner buy-in and success. By not involving students in the initial training, the introduction and training will be provided by teachers or administrators. Training for students that is not closely defined or monitored may lead to many inconsistencies. For example, several teachers may be charged with training students, resulting in a possible variety of presentations that may not be the same. Students may then receive miscommunication or information that is inaccurate.

Also, teachers providing training to students may not have taken complete ownership of the strategies, resulting in messaging of the concepts being misconstrued or biased. As a result, the level of student buy-in regarding self-efficacy may be negatively impacted. A possible remediation of this limitation would be to hold a separate training for students. The student participants would be inclusive of student leaders within each grade level. Two days of training could occur with students, and the final day could consist of a planning session with both teachers and students. The culminating project for participants would consist of teachers and students defining each role in the implementation, and creating a plan that includes both teacher and student actions, a timeline, and expected outcomes.

Scholarship

Throughout this journey of identifying and articulating a problem, planning and implementing a case study, and developing a project, I have grown tremendously. The depth of research necessary to complete this project has enhanced my knowledge as a practitioner and educator who will continue to conduct research to improve educational

opportunities for my community at large. Studying and applying qualitative research methods has prompted me to expand my thinking regarding the components of a case study such as adequate sampling. I have also gained a more thorough understanding of possible biases that are present within participants and the study itself. I am even more aware of my own biases that I did not discover until I took a deeper dive into my research. The process of identifying those possible biases and establishing a method to limit those biases will transform how I read and interpret new information.

As a researcher, I have discovered the profound need for continued research in every field of study. Individuals willing to identify problems that exist in society are vital in our communities as they challenge or validate current views and impact social change. I believe that my work at Walden University has accomplished this, and I have developed the skills to continue this invaluable contribution.

Project Development and Evaluation

This project was developed to address the problem of African American students consistently performing lower than students in other districts in Tennessee, and to identify the educational strategies teachers use to address the problem. After I interviewed teachers implementing single-gender instruction as a practice to address this problem, there were trends that were evident in the data analysis. Teachers perceived single-gender classrooms as an effective tool for educating African American students. However, they received limited training on implementing teaching that was specific to girls and boys. The goal of my project was to provide teachers with strategies to enhance the teaching and learning of African American boys and girls. Mezirow's theory of

transformative learning was used to guide this process.

I designed formative and summative assessments to evaluate the project. A survey will be provided after the first day of the professional development as a formative assessment to measure the effectiveness of the information that was presented and the manner in which it was presented. Information gained from this survey will enable me to monitor and make any necessary adjustments to the next and final days of the 3-day workshop. The summative assessment will be used as the final evaluative measure of the workshop. The data from this survey will determine the overall success of the project and may serve as a possible guide for future implementation. From the summative assessment, I will gather the feedback from the surveys to determine the effectiveness of the information presented, the supplemental materials, and the timeline of the 3-day professional development training.

Leadership and Change

Throughout this process, there have been opportunities to reflect on my current capacity as a leader, and on possible areas of change. As a school leader, I have created and implemented several professional development opportunities for teachers. However, I have not presented to teachers at other schools and their administration. This opportunity forced me to more thoroughly prepare for an unfamiliar audience. Presenting to schools in which there is no prior knowledge of their personalities, challenges, and cultural dynamics can be a challenge. A lack of preparedness could result in participants being less receptive to information that could be potentially transformative to their practice.

As a leader, I will begin to prepare for all presentations with this level of preparedness. I will also begin to root each training in a theoretical framework to guide my implementation. Researching and utilizing Mezirow's transformational learning theory has helped to put in perspective why professional learning implemented in the past may not have produced the desired results. The focus on educators moving from the intangible to the tangible is a clear goal of this theory (Powell & Powell, 2015). In the future, I will mirror this expectation as I continue to facilitate professional learning.

Analysis of Self as Scholar

As a scholar, I have gained valuable insight regarding my abilities as a writer and a researcher. I began this journey with writing skills that reflected my style as a creative writer. I was overly descriptive in adding unnecessary "fluff." I must admit that I also had a vague understanding of writing that is representative of expert knowledge and not thoughts and beliefs that are less credible. It was a challenge to write in a scholarly manner that did not exude bias or opinion rather than facts and peer reviewed references.

I emerged as a researcher when I began to thoroughly read articles, books, and dissertations. Synthesizing and organizing a myriad of references allowed me to hone my skills as a researcher. Understanding the process other researchers took to contribute to social change began to help frame and guide my process as a student wanting to not only identify a problem within my practice, but also to take the necessary steps to identify a possible solution or create deeper understanding.

Analysis of Self as Practitioner

As a practitioner, I know that I have become a better school leader. When I begin

to set goals for my school based on identified problems, challenges, or needs, I now know the level of research that should be required when attempting to transform practice. Effective and thorough research is essential in promoting strategies that will impact teaching and learning. In the future, I will only present my faculty with information and practices that are credible and validated. A researcher takes a substantial amount of time to ensure that information is reliable and will directly impact the problem based on a number of sources such as case studies, peer reviewed articles, books, and journals that are reviewed and analyzed. A practitioner that accepts the role of a researcher when encountered with a problem or challenge has a greater ability to positively impact practice and to build capacity among other educators.

The ongoing feedback received by my chair and co-chair has also been vital in my growth as a practitioner. My team provided feedback that did not provide the answers; however, made me think critically about all of the aspects of my project. The feedback was timely, actionable, and consistent. As a result, the work was challenging but was manageable because of the guidance I was provided. This feedback has transformed how I coach my teachers through challenges. I will ask the right questions and will give them the tools necessary to make researched-based decisions to improve teaching and learning.

Analysis of Self as Project Developer

As a project developer, I have successfully acquired an understanding of creating and implementing a project for an audience. Although I have created opportunities for professional growth and learning for teachers and administrators, I have not done so based on thorough research. The process of identifying a suitable project based on my

research data has furthered my skills as a coach and an instructional leader. The professional development training was implemented based on interviews from 10 teachers. I used the data to determine what would be an appropriate project that would address the trends presented from the participant data. In the past, I have determined a problem of practice based on observations, student work, formative and summative tests, and a number of other indicators. As I reflect on my past processes, I now realize that my professional development was based on solid data. However, it was not heavily grounded in adequate research that could truly transform problems of practice in order to make significant academic gains. Moving forward, I will not identify a problem or attempt a solution without ensuring that adequate steps are taken to conduct thorough research.

The Project's Potential Impact on Social Change

This project has a far-reaching impact on social change. As an educator, it has been a challenge to increase student success for at-risk students. It has been difficult to reach all students and to provide a differentiated learning experience for students based on their needs. This is a problem for my district as well as districts across the nation. My project provides information that focuses on specific ways girls and boys learn. Teachers received strategies to implement based on individual needs of students. Teachers also received training on helping students to take ownership of their education by introducing self-efficacy as a motivational belief system. For many students, confidence in their abilities is absent in their educational experience.

When educators in my district and school districts across the country are able to help all students achieve at optimal levels, communities across the country can be

transformed for the better. Education has been described by many as the biggest equalizer. Providing better educational opportunities to students and helping them to take ownership in their education can reduce crime in America. When individuals excel academically, they are more likely able to be productive in society which will increase employability in America.

Implications, Applications, and Directions for Future Research

My project implemented a 3-day professional development training to two schools in a large district. Although these schools are accurate representations of the student population in this district, it would be ideal to include a larger number of schools in the training to be able to build capacity within the district.

This professional development provided critical informal on single-gender education and self-efficacy. However, there is a plethora of training that is necessary to implement this learning with fidelity. Ongoing professional learning would be necessary to ensure that participants have a thorough understanding of these practices. Ideally, participants should receive continued support introducing these strategies to their learning community. Educators would also benefit from their implementation being monitored through observations from both administrators and peers with feedback to guide future adjustments.

This project was provided to two high schools using single-gender classrooms to teach African American students. There are other districts utilizing or considering this practice that could benefit from training that would help them to implement strategies that would be useful in these classes. In the future, it would also be beneficial to provide

this training to more districts in Tennessee in order to increase the capacity to reach more at-risk student populations across the state.

Conclusion

This section highlighted reflections of this project and conclusions that were made from its implementation. Section 4 also examined the strengths and limitations of the project as well as implications for further research and why it is important. I also provided an analysis of myself as a scholar, practitioner, and a project developer.

This project was created based on data received from interviewing teachers utilizing single-gender classrooms to educate African American students. As a result of the teacher responses, there was an expressed need for further understanding strategies used to teach girls and boys separately as well as how to motivate each gender based on their specific needs. A 3-day professional development training was created to provide educators with additional strategies to better enhance teaching and learning in their single-gender classrooms. Educators were informed about single-gender classrooms as a practice to help differentiate learning for male and female students. Educators were also introduced to self-efficacy as a means of assisting at-risk student populations in being successful. Educators concluded the training with analysis of the advantages and disadvantages of single-gender instruction according to research. Although this project specifically addresses the needs of teachers educating students in single-gender classrooms, the strategies learned throughout the training can also be beneficial in traditional classrooms. It is my hope that I am able to improve the practice of many educators to ultimately improve the educational experience of all students.

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Appendix A: Professional Development Workshop

Day 1- Agenda

8:00 - 8:30am

Breakfast and sign-in

8:30 – 9:00am

Welcome**Ice Breaker Activity**

_____ movie described my first week of school because
 _____ Now that I am finally at the end of the year, I am singing
 the song _____ because _____.

9:30-9:45am

Identify Professional Development Goals

- *What is the history of single-gender education?
- *What does research suggests about single-gender education?
- *What are the similarities and differences of how males and females learn?
- *What are the implications for teaching and learning?

9:45-10:00am

Break

10:00-11:00am

Part I–PowerPoint Presentation

11:00-11:10am

Journal Reflection

11:10am-12:10pm

Lunch

12:15-2:00pm

Part II-PowerPoint Presentation

2:00-2:15pm

Break

2:15-2:45pm

Conclusion and Journal Reflection

2:45-3:00pm

Formative Assessment

SINGLE-GENDER CLASSES



IMPLICATIONS FOR TEACHING AND LEARNING

THE HISTORY OF SINGLE GENDER EDUCATION

- **Single-gender education** is the practice of conducting **education** where male and female students are taught in separate **classes** or in separate buildings or schools.
- Historically, single-gender schools existed due to the exclusion of women being allowed to receive an education. As women began to matriculate into the educational system, classes and schools began to become integrated with both genders.
- Single-gender classes have resurfaced to address gender equity and poor educational outcomes for low-income youth of color (Riordan, 2015). Structural and cultural aspects of education may improve for these students.

TITLE IX

No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance

Main Points:

- Introduced in 1972
- Part of the Educational Amendments Act
- Provide equal opportunity to the educational system in the U.S.



THINK AND JOURNAL



- How does current practice support student success?
- Do current practices provide equity in learning for all students? Explain.
- Is there currently an achievement gap among student groups? If so, which students?
- Why do you believe this gap exists?

Take 15 minutes to discuss at your tables.



Each table will address one question and share out your discussion points to the group.

TEACHING AND LEARNING

- Single-gender education supports that each gender learns differently based on how information is cognitively processed. Females and males have differing brain structures affecting how they receive, process, and remember information (Prokhorov, Chernov, & Yusupov, 2015).
- When teachers use strategies that are more aligned to how specific genders learn best, students are able to increase their level of understanding in deficient subject area as well as increase academic engagement (Brown, 2013).



THINK AND SHARE!!!

- Divide into 4 groups (count 1, 2, 3, and 4)
- 2 groups will brainstorm and chart possible advantages of single-gender classes.
- 2 groups will brainstorm and chart possible disadvantages of single-gender classes.



Let's share!!!



WHAT DOES RESEARCH SAY ABOUT SINGLE-GENDER....PROS?

- Higher student satisfaction rate than coed classes (Hart, 2015; Piechura-Couture, Heins, & Tichenor, 2013; Daniels, 2014).
- Greater focus on the different learning styles of both genders (Williams, 2014; Starcher & Allen, 2016).
- Increased student engagement among both genders (Small, 2012; Maye & Day, 2012).
- Increased possibility of teachers meeting the academic and social needs of students (Ibanez, 2011; Dickey, 2014; Willis, 2015; Milligan, 2015; Ouer, 2014)
- Increased student achievement in math, science, and reading (Pahlke, Hyde, & Allison, 2014; Swinton, Kurtz-Costes, Rowley, & Okeke-Adeyanju, 2011)
- Decreased referrals of African American male students to special education classes and decreased disciplinary challenges (Milligan, 2015; Scott, Allen, & Lewis, 2014)

WHAT DOES RESEARCH SAY ABOUT SINGLE-GENDER.....CONS?

- Ineffective if teachers are not fully prepared to teach according to the learning styles of each gender (Smeaton & Waters, 2013; Sleeter, 2012).
- Some feel that it is discrimination.
- It can provide students with a false perception of real life and real world situations (Ali, Baker, & Akhtar, 2014).
- It further supports negative stereotypes and marginalization of minority groups (Goodkind, 2013).

DO FEMALE AND MALE STUDENTS LEARN DIFFERENTLY?

Reflect and Journal

- Take 10 minutes to journal what you have observed in your classes that describe how both male and female students learn.
- Take 10 minutes to discuss at your table what you have observed.

Let's share out addressing the following:

What are the differences?

What are the similarities?

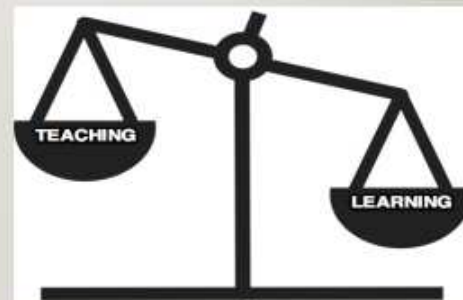
Are the similarities and differences significant and why?



IMPLICATIONS FOR TEACHING AND LEARNING

- As you reflect on learning based on specific genders, what are the implications for teaching?
- Current practices?
- Future practices?

Take 10 minutes to journal.



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Day 2-Agenda

8:00-8:30am

Breakfast and sign-in

8:30-8:45am

***Participants will review notes from first day on single-gender classrooms. Specifically looking at the disadvantages and advantages they listed the for during the first session. Participants will discuss what ideas were confirmed on changed at the conclusion of the session.**

8:45-10:00am

***Participants will complete a group read of an article that details a study about single-gender classrooms. Participants will be divided into four groups two will read the study, annotate and discuss the possible advantages of single-gender classrooms. The other two groups will annotate and discuss the disadvantages. Participants will chart important take-aways and implications for teaching and learning.**

Article: Pahlke, E., Hyde, J., & Allison, C. (2014). The effects of single-sex compared with coeducational schooling on student performance and attitudes: A meta-analysis. *Psychological Bulletin*, 140(4), 1042-1072. doi.10.1037/a0035740

10:00-10:15am

Break

10:15-11:45am

***Each group will share out their points and summarize their discussion. Participants will discuss their views according to what they have read and heard from other groups.**

11:45am-12:45pm

Lunch

12:45-2:00pm

***Participants will review the reflection from the first session on the similarities and differences of how students learn. Participants will also discuss their reflection of the current and future impact of practice. Participants will compare and discuss their positions prior to the article analysis. Each will note and discuss if their positions have changed and why. They will also note and discuss if their positions have been reaffirmed and why. As a group, participants will discuss the impact of current and future practice considering their positions.**

2:15-2:30pm

Break

2:30-3:00pm

Reflection

Day 3- Agenda

8:00 - 8:30am

Breakfast and sign-in

8:30 – 8:45am

KWL chart (K)

8:45-9:15am

Review Professional Development Goals

*Define self-efficacy.

*Understand the self-efficacy belief system.

*Identify factors that affect self-efficacy.

*How does self-efficacy apply to practice?

9:15-9:30am

Break

9:30-9:45am

KWL (W)

9:45-11:30am

PowerPoint Presentation

11:30am-12:30pm

Lunch**12:30-1:45pm**

*Participants will sit with their school in departments. Based on the strategies and examples provided, teams will create 4 subject specific best practices that support the self-efficacy. Each team will create practices for both teachers and for students. Administrators will work together to create school-wide best practices.

1:45-2:00pm

Break

2:00-2:45pm

Teams will share out to other teams

2:45-3:00pm

KWL (L)

2:45-3:00pm

Summative Assessment

SELF-EFFICACY



KWL

- Take 5 minutes to journal.
 - What do you already know about self-efficacy?

WHAT DO YOU ALREADY KNOW	W	L

SELF-EFFICACY: DEFINITION and THEMES

- Self-efficacy is one's own belief in his/her abilities to organize and execute course of action required to produce given attainments (Bandura, 1997).
- Self-efficacy is a tenet of the Social Cognitive Theory (SCT)
- Environmental and human behaviors influence behavioral changes.
- Expected outcomes and efficacy human behavioral changes.

BIG PICTURE

- ONE MUST BELIEVE AND COMMIT TO ACTION EVEN WHEN PRESENTED WITH DIFFICULTIES IN ORDER TO ACHIEVE DESIRED OUTCOMES.



KWL

- Based on what you have heard so far, please complete the W portion of your chart. What do you wish to learn about self-efficacy?
 - Take 10 minutes to journal.

WHAT DO YOU ALREADY KNOW?	WHAT DO YOU WANT TO LEARN?	L

WHAT ARE YOUR THOUGHTS?

- “People are born smart or gifted.”
- “Even with extensive effort, some people do not have the capacity to achieve academically.”
- “If you work hard enough, you can achieve anything.”
- “My environment has very little to do with my success.”

TRIADIC RECIPROCAL DETERMINISM MODEL



Behavior



Personal



Environmental

SELF-EFFICACY BELIEF SYSTEM

Strong Self-Efficacy

- Loss of confidence quicker in personal abilities when faced with difficulties (Bandura, 1994).
- Avoiding challenging tasks.
- More focused on failures than successes.
- Belief that complex tasks are beyond abilities

Weak Self-Efficacy

- Quick recovery when set backs and disappointments occur.
- Sees challenges as opportunities.
- Stronger commitment to interests
- Deeper interests in activities.

FACTORS AFFECTING SELF-EFFICACY

- **Performance Accomplishments:** Self-confidence increases if students experience past successes.
- **Vicarious Experiences:** Previous observations. Watching others perform successfully can increase self-efficacy.
- **Verbal Persuasion:** Continued encouragement to try activities increases confidence.
- **Emotional Arousal:** Perceptions of our arousal can affect our confidence in particular situations.

FOR EXAMPLE...

- **Building self-efficacy for an athlete who wants to successfully shoot a free throw in basketball.**
 - Provide initial success by having the athlete to first shoot closer to the goal.
 - Allow someone with similar ability to demonstrate with success.
 - Verbally encourage the athlete to try.
 - Explain that it is natural to be nervous and that this is a natural response that can actually help us.

APPLICATION TO PRACTICE

- At your table, identify a situation in the classroom in which you will need to help students build self-efficacy.
- Create steps based on the contributing factors.
- Take 15 minutes and prepare to share out.

KWL

- **What have you learned today about self-efficacy? What do you still have questions about?**
 - Take 10 minutes to journal.

WHAT DO
YOU
ALREADY
KNOW?

WHAT DO
YOU WANT
TO LEARN?

WHAT HAVE
YOU
LEARNED?

References

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Formative Assessment

Directions: Please write the number that best describes your understanding and experience of the learning for today.

Strongly Agree: 1 Agree: 2 Disagree: 3 Strongly Disagree: 4

1. I can accurately define single-gender education and the history. _____
2. The training thoroughly explained the advantages of single-gender classes. _____
3. The training thoroughly explained the disadvantages of single -gender classes.

4. I understand the differences in how males and females learn. _____
5. Single-gender classes can address how my students learning. _____
6. The materials provided in this training were useful. _____
7. The presenter was prepared and knowledgeable about the subject. _____
8. The activities used in this training were beneficial to my learning. _____
9. The amount of time spent for each portion was appropriate. _____
10. I will be able to use what I learned today in my classroom. _____

Summative Assessment

Directions: Please write the number that best describes your understanding and experience of the learning for today.

Strongly Agree: 1 Agree: 2 Disagree: 3 Strongly Disagree: 4

1. I can accurately define self-efficacy. _____
2. I have a thorough understanding of the self-efficacy belief system. _____
3. I can identify the factors that affect self-efficacy. _____
4. I can adequately apply the components of self-efficacy in my classroom. _____
5. I can successfully create lesson plans the include the topics of the 3-day professional development. _____
6. I will implement some or all of the strategies I learned during the 3-day professional development in my classroom. _____
7. All of the materials provided were useful and relevant to my learning. _____
8. The time provided for the professional development was adequate. _____
9. The presenter was very knowledgeable about self-efficacy and single-gender classes. _____
10. The presenter was able to thoroughly show how these practices could improve teaching and learning in my classroom. _____

Appendix B: Interview Protocol

Date:

Participant ID#

Participant Pseudonym:

 Verify participant identify Introduce myself State the purpose of the study Review signed consent form Explain the interview process (time, audio recorder, and additional notetaking) Recheck equipment Ask if there are any questions Begin interview

Interview Questions

1. What are your experiences with teaching African American students single-gender classrooms and co-educational classrooms?
2. What are your views of educating African American girls and boys separately?
3. What instructional strategies do you use in educating African American students in single-gender classrooms? How do they differ from co-educational classrooms?
4. What are the advantages and disadvantages of single-gender classrooms for African American students?
5. Explain your perceptions of single-gender classrooms to educate African Americans.
6. Please describe an effective lesson in single-gender instruction.
7. What are indications of students being successful during a lesson? What are the student and teacher actions?
8. How do you determine what pedagogical practices will be used in your classroom?
9. What learning differences have you observed from boys and girls?
10. Would you prefer to teach African American students in a single-gender classroom and why?

Appendix C: Recruitment Flyer

Single-Gender Classes for African American Students Research Study

You are invited to participate in a study about the experiences of teachers who teach African American students in single-gender classes.

If you have all of the following qualifications, you can participate:

- Currently teach mostly African American students in single-gender classes
- Have experience also teaching traditional classes
- Teach single-gender classes in the subjects of math, English or science

I am a student at Walden University, and this research is a part of my doctoral study. The purpose of this study is to explore the practice of teachers who use single-gender instruction. This study will focus on the experiences of those teachers who use this strategy to teach African American students.

If you are interested, contact XXXXXXXXXXXX at XXX-XXX-XXXX or XXXXX@XXX.com to set up an interview date and time.

All interviews will be held after school hours at your school's library. Each participant will receive a 5\$ gift card.